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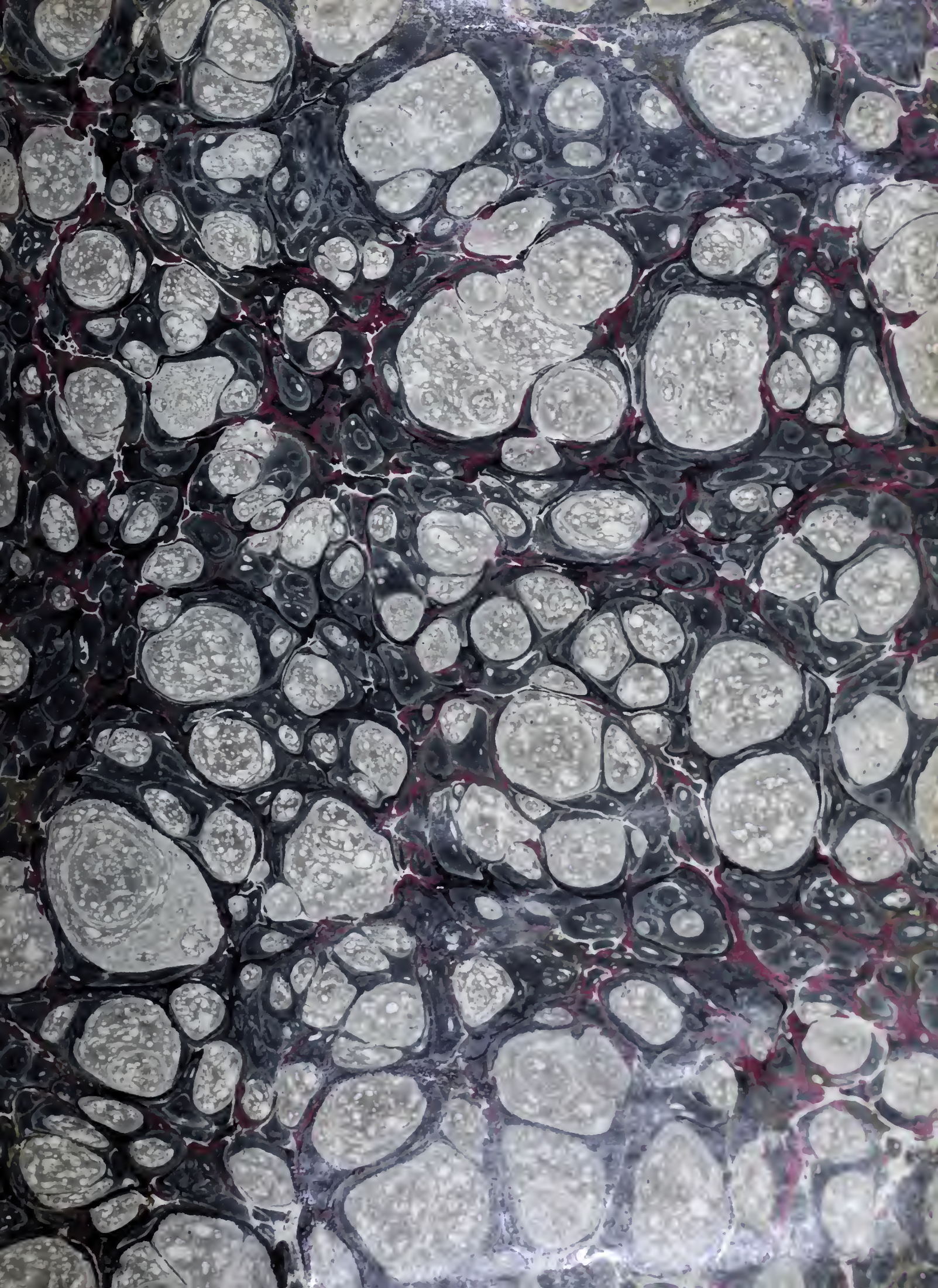

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ENCYCLOPÆDIA BRITANNICA.

RHI

Rhizophora.

RHIZOPHORA, the MANGROVE, or *Mangle*, a genus of plants belonging to the dodecandria class; and in the natural method ranking under the 12th order, *Holoraceæ*. These plants are natives of the East and West Indies, and often grow 40 or 50 feet high. They grow only in water and on the banks of rivers, where the tide flows up twice a-day. They preserve the verdure of their leaves throughout the year. From the lowest branches issue long roots, which hang down to the water, and penetrate into the earth. In this position they resemble so many arcades, from five to ten feet high, which serve to support the body of the tree, and even to advance it daily into the bed of the water. These arcades are so closely intertwisted one with another, that they form a kind of natural and transparent terrace, raised with such solidity over the water, that one might walk upon them, were it not that the branches are too much encumbered with leaves. The most natural way of propagating these trees, is to suffer the several slender small filaments which issue from the main branches to take root in the earth. The most common method, however, is that of laying the small lower branches in baskets of mou'd or earth till they have taken root.

The description just given pertains chiefly to a particular species of mangrove, termed by the West Indians *black mangles*, on account of the brown dusky colour of the wood. The bark is very brown, smooth, pliant when green, and generally used in the West India islands for tanning of leather. Below this bark lies a cuticle, or skin, which is lighter, thinner, and more tender. The wood is nearly of the same colour with the bark; hard, pliant, and very heavy. It is frequently used for fuel, for which purpose it is said to be remarkably proper; the fires which are made of this wood being both clearer, more ardent and durable than those made of any other materials whatever. The wood is compact; almost incorruptible; never splinters; is easily worked; and were it not for its enormous weight, would be commodiously employed in almost all kinds of work, as it possesses every property of good timber. To the roots and branches of mangroves that are immersed in the water, oysters frequently attach themselves; so that wherever this curious plant is found growing on the sea-shore, oyster-fishing is very easy; and in such cases these shell-fish may be literally said to grow upon trees.

RHO

Rhizophora. Rhode-Island.

The red mangle or mangrove grows on the sea-shore, and at the mouth of large rivers; but does not advance, like the former, into the water. It generally rises to the height of 20 or 30 feet, with crooked, knotty branches, which proceed from all parts of the trunk. The bark is slender, of a brown colour, and, when young, is smooth, and adheres very closely to the wood; but when old, appears quite cracked, and is easily detached from it. Under this bark is a skin as thick as parchment, red, and adhering closely to the wood, from which it cannot be detached till the tree is felled and dry. The wood is hard, compact, heavy, of a deep red, with a very fine grain. The pith or heart of the wood being cut into small pieces, and boiled in water, imparts a very beautiful red to the liquid, which communicates the same colour to wool and linen. The great weight and hardness of the wood prevent it from being generally used. From the fruit of this tree, which, when ripe, is of a violet colour, and resembles some grapes in taste, is prepared an agreeable liquor, much esteemed by the inhabitants of the Caribbee islands.

White mangle, so termed from the colour of its wood, grows, like the two former, upon the banks of rivers, but is seldom found near the sea. The bark is gray; the wood, as we have said, white, and when green supple; but dries as soon as cut down, and becomes very light and brittle. This species is generally called *rope-mangrove*, from the use to which the bark is applied by the inhabitants of the West Indies. This bark, which, on account of the great abundance of sap, is easily detached when green from the wood, is beaten or bruised betwixt two stones, until the hard and woody part is totally separated from that which is soft and tender. This last, which is the true cortical substance, is twisted into ropes of all sizes, which are exceedingly strong, and not apt to rot in the water.

RHODE-ISLAND, one of the smallest of the United States of America, not exceeding 47 miles in length and 37 in breadth, is bounded on the N. and E. by the province of Massachusetts; on the S. by the Atlantic, and on the W. by Connecticut. Its area is 1550 square miles. It is divided into five counties, viz. Newport, Providence, Washington, Bristol, and Kent, which are subdivided into 30 town ships, containing 76,931 inhabitants in 1810, of whom 108 were slaves. This state is intersected by rivers in all directions; and the winters in the maritime parts of it are milder than in the

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Rhode-Island.

the interior of the country. The summers are delightful, and the climate is considered to be more salubrious than any other in the United States. The rivers and bays teem with fish of different kinds, and it is generally allowed by travellers, that Newport is the best fish market in the world. This state produces rye, barley, oats, maize, and in some places wheat sufficient for home consumption. Cyder is made here for exportation; and it abounds with grasses, fruits, and culinary roots and plants, all of an excellent quality. The north-western parts are but thinly inhabited, and more rocky and barren than the rest of the state. There are extensive dairies in some parts of it, which produce butter and cheese of the best quality, and in large quantities for exportation. Iron ore is found in great abundance in many parts of the state; and the iron-works on Patuxet river, 12 miles from Providence, are supplied with ore from a bed about four miles and a half distant, where a variety of ores, curious stones, and ochres, are also met with; and there is a copper mine mixed with iron in the township of Cumberland. Here also lime stone abounds, and coal has lately been found. The chief towns of the state are Providence and Newport; the former contained 10,071, and the latter 7907 inhabitants in 1810. The slave-trade, which was a source of wealth to many, has been happily abolished. Bristol carries on a considerable trade to Africa, the West Indies, and different parts of the United States: but the inhabitants of the prosperous town of Providence have in their hands the greatest part of the commerce; the tonnage of this place in 1815 was 18,538 tons. The common exports are flax-seed, timber, horses, cattle, beef, pork, fish, poultry, onions, butter, cheese, barley, grain, spirits, cotton and linen goods. The imports consist of West India and European goods, and logwood is brought from the bay of Honduras. At the different ports of this state more than 600 vessels enter and clear out annually. The amount of exports in 1810 was 1,331,576 dollars, and in 1817 it was 950,467 dollars. At Providence there are various cotton manufactories, the produce of which is sent to the southern states; but the manufactures of bar and sheet iron, steel, nail-roads, and nails, implements of husbandry, stoves, pots, &c. are the most extensive. The whole amount of manufactures in 1810 was 3,079,556 dollars. The value of lands and houses in this state in 1799 was 11,066,357 dollars, and in 1814 the value was 21,567,020 dollars. The average value of lands per acre, including buildings, was 39 dollars. The constitution of the state is founded on the charter granted in 1663 by Charles II.; and the revolution made no effectual change on the form of government. The legislature consists of two branches; a senate composed of ten members, besides a governor and deputy-governor, and a house of representatives. The members of the legislature are chosen twice a year, and there are two sessions of this body annually. So little has the civil authority to do with religion here, that no contract between a minister and a society is of any force, for which reason a great number of sects have always been found here; yet it is said that the sabbath, and all religious institutions are more neglected in this, than in any other of the New England states. The Baptists and Congregationalists are the most numerous sects. But there are besides a considerable number of Quakers, Episcopalians, Moravians, and Jews. There were no less than 28 banks in this state in 1818.

Rhode-Island, Rhodes.

RHODE-ISLAND, an island of N. America, in a state of the same name, situated between 41° 28′ and 41° 42′ N. Lat. and between 71° 17′ and 71° 27′ W. Long. from Greenwich, or about 15 miles long, and its medium breadth about 3 and a half. It is a famous resort for invalids from the southern climates, as it is exceedingly pleasant and healthful, being at one period regarded as the Eden of North America.

1 Ancient names and etymology.

RHODES, a celebrated island in the Archipelago, the largest and most easterly of the Cyclades, was known in ancient times by the names of *Asteria, Ophiusa, Æthræa, Trinacria, Corymbia, Poessa, Atabyria, Marcia, Oloessa, Stadia, Telchinis, Pelagia,* and *Rhodus.* In later ages, the name of *Rhodus,* or *Rhodes,* prevailed, from the Greek word *rhodon,* as is commonly supposed, signifying a "rose;" the island abounding very much with these flowers. Others, however, give different etymologies, among which it is difficult to find one preferable to another. It is about 20 miles distant from the coasts of Lycia and Caria, and about 120 miles in compass.

2 Its origin.

Several ancient authors assert, that Rhodes was formerly covered by the sea, but gradually raised its head above the waves, and became an island. Delos and Rhodes (says Pliny), islands which have long been * celebrated, sprung at first from the sea. The same fact is supported by such a variety of other evidence as render it indubitable. Philo † ascribes the event to the decrease of the waters of the ocean. If his conjecture be not without foundation, most of the isles of the Archipelago, being lower than Rhodes, must have had a similar origin. But it is much more probable that the volcanic fires, which in the fourth year of the 135th Olympiad, raised Therasia and Thera, known at present by the name of *Santorin,* from the depths of the sea, and have in our days thrown out several small islands adjacent, also produced in some ancient era Rhodes and Delos.

* *Pliny,* lib. ii. cap. 87.

† *Philo de Mundo.*

3 First inhabitants.

The first inhabitants of Rhodes, according to Diodorus Siculus, were called the *Telchinæ,* who came originally from the island of Crete. These, by their skill in astrology, perceiving that the island was soon to be drowned with water, left their habitations, and made room for the Heliades, or grandsons of Phœbus, who took possession of the island after that god had cleared it from the water and mud with which it was overwhelmed. These Heliades, it seems, excelled all other men in learning, and especially in astrology; invented navigation. &c. In after ages, however, being infested with great serpents which bred in the island, they had recourse to an oracle in Delos, which advised them to admit Phorbas, a Thessalian, with his followers, into Rhodes. This was accordingly done: and Phorbas having destroyed the serpents, was, after his death, honoured as a demigod. Afterwards a colony of Cretans settled in some part of the island and a little before the Trojan war, Tlepolemus the son of Hercules, who was made king of the whole island, and governed with great justice and moderation.

After the Trojan war, all the ancient inhabitants were driven out by the Dorians, who continued to be masters of the island for many ages. The government was at first monarchical; but a little before the expedition

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tion of Xerxes into Greece, a republican form of government was introduced; during which the Rhodians applied themselves to navigation, and became very powerful by sea, planting several colonies in distant countries. In the time of the Peloponnesian war, the republic of Rhodes was rent into two factions, one of which favoured the Athenians, and another the Spartans; but at length the latter prevailing, democracy was abolished, and an aristocracy introduced. About 351 B. C. we find the Rhodians oppressed by Mausolus king of Caria, and at last reduced by Artemisia his widow. In this emergency, they applied to the Athenians, by whose assistance, probably, they regained their liberty.

5 Submit to Alexander, but revolt after his death.

From this time to that of Alexander the Great, the Rhodians enjoyed an uninterrupted tranquillity. To him they voluntarily submitted; and were on that account highly favoured by him: but no sooner did they hear of his death, than they drove out the Macedonian garrisons, and once more became a free people. About this time happened a dreadful inundation at Rhodes; which being accompanied with violent storms of rain, and hailstones of an extraordinary bigness, beat down many houses, and killed great numbers of the inhabitants.

6 Violent inundation at Rhodes.

As the city was built in the form of an amphitheatre, and no care had been taken to clear the pipes and conduits which conveyed the water into the sea, the lower parts of the city were in an instant laid under water, several houses quite covered, and the inhabitants drowned before they could get to the higher places. As the deluge increased, and the violent showers continued, some of the inhabitants made to their ships, and abandoned the place, while others miserably perished in the waters. But while the city was thus threatened with utter destruction, the wall on a sudden burst asunder, and the water discharging itself by a violent current into the sea, unexpectedly delivered the inhabitants from all danger.

The Rhodians suffered greatly by this unexpected accident, but soon retrieved their losses by a close application to trade. During the wars which took place among the successors of Alexander, the Rhodians observed a strict neutrality; by which means they enriched themselves so much, that Rhodes became one of the most opulent states of that age; insomuch that, for the common good of Greece, they undertook the *piratic war*, and, at their own charge, cleared the seas of the pirates who had for many years infested the coasts of Europe and Asia.

7 Difference with Antigonus.

However, notwithstanding the neutrality they professed, as the most advantageous branches of their commerce were derived from Egypt, they were more attached to Ptolemy, king of that country, than to any of the neighbouring princes. When therefore Antigonus, having engaged in a war with Ptolemy about the island of Cyprus, demanded succours of them, they earnestly intreated him not to compel them to declare war against their ancient friend and ally. But this answer, prudent as it was, drew upon them the displeasure of Antigonus, who immediately ordered one of his admirals to sail with his fleet to Rhodes, and seize all the ships that came out of the harbour for Egypt. The Rhodians, finding their harbour blocked up by the fleet of Antigonus, equipped a good number of galleys fell upon the enemy, and obliged him, with the loss of many ships, to quit his station. Hereupon Antigonus, charging them as aggressors, and beginners of an unjust war, threatened to besiege their city with the strength of his whole army. The Rhodians endeavoured by frequent embassies to appease his wrath; but all their remonstrances served rather to provoke than allay his resentment: and the only terms upon which he would hearken to any accommodation were, that the Rhodians should declare war against Ptolemy, that they should admit his fleet into their harbour, and that an hundred of the chief citizens should be delivered up to him as hostages for the performance of these articles. The Rhodians sent ambassadors to all their allies, and to Ptolemy in particular, imploring their assistance, and representing to the latter, that their attachment to his interest had drawn upon them the danger to which they were exposed. The preparations on both sides were immense. As Antigonus was near fourscore years of age at that time, he committed the whole management of the war to his son Demetrius, who appeared before the city of Rhodes with 200 ships of war, 170 transports having on board 40,000 men, and 1000 other vessels laden with provisions and all sorts of warlike engines.

8 Rhodes besieged by Demetrius.

As Rhodes had enjoyed for many years a profound tranquillity, and been free from all devastations, the expectation of booty, in the plunder of so wealthy a city, allured multitudes of pirates and mercenaries to join Demetrius in this expedition; insomuch that the whole sea between the continent and the island was covered with ships: which struck the Rhodians, who had a prospect of this mighty armament from the walls, with great terror and consternation.

Demetrius, having landed his troops without the reach of the enemy's machines, detached several small bodies to lay waste the country round the city, and cut down the trees and groves, employing the timber, and materials of the houses without the walls, to fortify his camp with a strong rampart and a triple palisade; which work, as many hands were employed, was finished in a few days. The Rhodians, on their part, prepared for a vigorous defence.

9 The inhabitants prepare for a vigorous defence.

Many great commanders, who had signalized themselves on other occasions, threw themselves into the city, being desirous to try their skill in military affairs against Demetrius, who was reputed one of the most experienced captains in the conduct of sieges that antiquity had produced. The besieged began with dismissing from the city all such persons as were useless; and then taking an account of those who were capable of bearing arms, they found that the citizens amounted to 6000, and the foreigners to 1000. Liberty was promised to all the slaves who should distinguish themselves by any glorious action, and the public engaged to pay their masters their full ransom. A proclamation was likewise made, declaring, that whoever died in defence of their country should be buried at the expence of the public; that his parents and children should be maintained out of the treasury; that fortunes should be given to his daughters; and his sons, when they were grown up, should be crowned and presented with a complete suit of armour at the great solemnity of Bacchus; which decree kindled an incredible ardour in all ranks of men.

10 Engines of Demetrius burnt.

Demetrius, having planted all his engines, began to batter with incredible fury the walls on the side of the harbour; but was for eight days successively repulsed by the besieged, who set fire to most of his warlike engines,

gines, and thereby obliged him to allow them some respite, which they made good use of in repairing the breaches, and building new walls where the old ones were either weak or low. When Demetrius had repaired his engines, he ordered a general assault to be made, and caused his troops to advance with loud shouts, thinking by this means to strike terror into the enemy. But the besieged were so far from being intimidated, that they repulsed the aggressors with great slaughter, and performed the most astonishing feats of bravery. Demetrius returned to the assault next day; but was in the same manner forced to retire, after having lost a great number of men, and some officers of distinction. He had seized, at his first landing, an eminence at a small distance from the city; and, having fortified this advantageous post, he caused several batteries to be erected there, with engines, which incessantly discharged against the walls stones of 150 pounds weight. The towers, being thus furiously battered night and day, began to totter, and several breaches were opened in the walls: but the Rhodians, unexpectedly sallying out, drove the enemy from their post, overturned their machines, and made a most dreadful havock; insomuch that some of them retired on board their vessels, and were with difficulty prevailed upon to come ashore again.

11 Several desperate assaults without success.

Demetrius now ordered a scalade by sea and land at the same time; and so employed the besieged, that they were at a loss what place they should chiefly defend. The attack was carried on with the utmost fury on all sides, and the besieged defended themselves with the greatest intrepidity. Such of the enemy as advanced first were thrown down from the ladders, and miserably bruised. Several of the chief officers, having mounted the walls to encourage the soldiers by their example, were there either killed or taken prisoners. After the combat had lasted many hours, with great slaughter on both sides, Demetrius, notwithstanding all his valour, thought it necessary to retire, in order to repair his engines, and give his men some days rest.

Demetrius being sensible that he could not reduce the city till he was master of the port, after having refreshed his men, he returned with new vigour against the fortifications which defended the entry into the harbour. When he came within the cast of a dart, he caused a vast quantity of burning torches and firebrands to be thrown into the Rhodian ships, which were riding there; and at the same time galled, with dreadful showers of darts, arrows and stones, such as offered to extinguish the flames. However, in spite of their utmost efforts, the Rhodians put a stop to the fire; and, having with great expedition manned three of their strongest ships, drove with such violence against the vessels on which the enemy's machines were planted, that they were shattered in pieces, and the engines dismounted and thrown into the sea. Excestus the Rhodian admiral, being encouraged by this success, attacked the enemy's fleet with his three ships, and sunk a great many vessels; but was himself at last taken prisoner: the other two vessels made their escape, and regained the port

As unfortunate as this last attack had proved to Demetrius, he determined to undertake another; and, in order to succeed in his attempt, he ordered a machine of a new invention to be constructed, which was thrice the height and breadth of those he had lately lost. When the work was finished, he caused the engine to be placed near the port, which he was resolved, at all adventures, to force. But as it was upon the point of entering the harbour, a dreadful storm arising, drove it against the shore, with the vessels on which it had been reared. The besieged, who were attentive to improve all favourable conjunctures, while the tempest was still raging, made a sally against those who defended the eminence mentioned above; and, though repulsed several times, carried it at last, obliging the Demetrians, to the number of 400, to throw down their arms and submit. After this victory gained by the Rhodians, there arrived to their aid 150 Gnossians, and 500 men sent by Ptolemy from Egypt, most of them being natives of Rhodes, who had served among the king's troops.

12 Demetrius frames a new machine called *helepolis*.

Demetrius being extremely mortified to see all his batteries against the harbour rendered ineffectual, resolved to employ them by land, in hopes of carrying the city by assault, or at least reducing it to the necessity of capitulating. With this view, having got together a vast quantity of timber and other materials, he framed the famous engine called *helepolis*, which was by many degrees larger than any that had ever been invented before. Its basis was square, each side being in length near 50 cubits, and made up of square pieces of timber, bound together with plates of iron. In the middle part he placed thick planks, about a cubit distance from each other; and on these the men were to stand who forced the engine forward. The whole was moved upon eight strong and large wheels, whose felloes were strengthened with strong iron plates. In order to facilitate and vary the movements of the helepolis, casters were placed under it, whereby it was turned in an instant to what side the workmen and engineers pleased. From each of the four angles a large pillar of wood was carried to about the height of 100 cubits, and inclining to each other; the whole machine consisting of nine stories, whose dimensions gradually lessened in the ascent. The first story was supported by 43 beams, and the last by no more than nine. Three sides of the machine were plated over with iron, to prevent its being damaged by the fire that might be thrown from the city. In the front of each story were windows of the same size and shape as the engines that were to be discharged from thence. To each window were shutters, to draw up for the defence of those who managed the machines, and to deaden the force of the stones thrown by the enemy, the shutters being covered with skins stuffed with wool Every story was furnished with two large staircases, that whatever was necessary might be brought up by one, while others were going down by the other, and so every thing may be dispatched without tumult or confusion. This huge machine was moved forwards by 3000 of the strongest men of the whole army; but the art with which it was built greatly facilitated the motion. Demetrius caused likewise to be made several testudoes or pent-houses, to cover his men while they advanced to fill up the trenches and ditches; and invented a new sort of galleries, through which those who were employed at the siege might pass and repass at their pleasure, without the least danger. He employed all his seamen in levelling the ground over which the machines

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machines were to be brought up, to the space of four furlongs. The number of workmen who were employed on this occasion amounted to 30,000.

13 The Rhodians raise a new wall.

In the mean time, the Rhodians, observing these formidable preparations, were busy in raising a new wall within that which the enemy intended to batter with the helepolis. In order to accomplish this work, they pulled down the wall which surrounded the theatre, some neighbouring houses, and even some temples, after having solemnly promised to build more magnificent structures in honour of the gods, if the city were preserved. At the same time, they sent out nine of their best ships to seize such of the enemy's vessels as they could meet with, and thereby distress them for want of provisions. As these ships were commanded by the bravest sea-officers, they soon returned with an immense booty, and a great many prisoners. Among other vessels, they took a galley richly laden, on board of which they found a great variety of valuable furniture, and a royal robe, which Phila herself had wrought and sent as a present to her husband Demetrius, accompanied with a letter written with her own hand. The Rhodians sent the furniture, the royal robe, and even the letter, to Ptolemy; which exasperated Demetrius to a great degree.

While Demetrius was preparing to attack the city, the Rhodians having assembled the people and magistrates to consult about the measures they should take, some proposed in the assembly the pulling down of the statues of Antigonus and his son Demetrius, which till then had been held in the utmost veneration. But this proposal was generally rejected with indignation, and their prudent conduct greatly allayed the wrath both of Antigonus and Demetrius. However, the latter continued to carry on the siege with the utmost vigour, thinking it would reflect no small dishonour on him were he obliged to quit the place without making himself master of it. He caused the walls to be secretly undermined: but, when they were ready to fall, a deserter very opportunely gave notice of the whole to the townsmen; who having, with all expedition, drawn a deep trench all along the wall, began to countermine, and, meeting the enemy under ground, obliged them to abandon the work. While both parties guarded the mines, one Athenagoras a Milesian, who had been sent to the assistance of the Rhodians by Ptolemy with a body of mercenaries, promised to betray the city to the Demetrians, and let them in through the mines in the night-time. But this was only in order to ensnare them; for Alexander, a noble Macedonian, whom Demetrius had sent with a choice body of troops to take possession of a post agreed on, no sooner appeared, but he was taken prisoner by the Rhodians, who were waiting for him under arms.—Athenagoras was crowned by the senate with a crown of gold, and presented with five talents of silver.

14 The walls undermined without success.

15 A general assault to no purpose.

Demetrius now gave over all thoughts of undermining the walls, and placed all his hopes of reducing the city in the battering engines which he had contrived. Having therefore levelled the ground under the walls he brought up his helepolis, with four testudoes on each side of it. Two other testudoes of an extraordinary size, bearing battering-rams, were likewise moved forward by a thousand men. Each story of the helepolis was filled with all sorts of engines for discharging of stones, arrows, and darts. When all things were ready, Demetrius ordered the signal to be given; when his men, setting up a shout, assaulted the city on all sides both by sea and land. But, in the heat of the attack, when the walls were ready to fall by the repeated strokes of the battering rams, ambassadors arrived from Cnidus, earnestly soliciting Demetrius to suspend all further hostilities, and at the same time giving him hopes that they should prevail upon the Rhodians to submit to an honourable capitulation. A suspension of arms was accordingly agreed on, and ambassadors sent from both sides. But the Rhodians refusing to capitulate on the conditions offered them, the attack was renewed with so much fury, and the machines played off in so brisk a manner, that a large tower built with square stones, and the wall that flanked it were battered down. The besieged, nevertheless, fought in the breach with so much courage and resolution, that the enemy, after various unsuccessful attempts, were forced to abandon the enterprise, and retire.

16 The besieged receive a large supply of provisions, and set the enemy's engines on fire.

In this conjuncture, a fleet which Ptolemy had freighted with 300,000 measures of corn, and different kinds of pulse for the use of the Rhodians, arrived very seasonably in the port, notwithstanding the vigilance of the enemy's ships, which cruized on the coasts of the island to surprise them. A few days after came in safe two other fleets, one sent by Cassander, with 100,000 bushels of barley; the other by Lysimachus, with 400,000 bushels of corn and as many of barley. This seasonable and plentiful supply arriving when the city began to suffer for want of provisions, inspired the besieged with new courage, and raised their drooping spirits. Being thus animated, they formed a design of setting the enemy's engines on fire; and with this view ordered a body of men to sally out the night ensuing, about the second watch, with torches and firebrands, having first placed on the walls an incredible number of engines, to discharge stones, arrows, darts, and fireballs, against those who should attempt to oppose their detachment. The Rhodian troops, pursuant to their orders, all on a sudden sallied out, and advancing, in spite of all opposition, to the batteries, set them on fire, while the engines from the walls played incessantly on those who endeavoured to extinguish the flames. The Demetrians on this occasion fell in great numbers, being incapable, in the darkness of the night, either to see the engines that continually discharged showers of stones and arrows upon them, or to join in one body and repulse the enemy. The conflagration was so great, that several plates of iron falling from the helepolis, that vast engine would have been entirely consumed, had not the troops that were stationed in it with all possible speed quenched the fire with water, before prepared, and ready in the apartments of the engine against such accidents. Demetrius, fearing lest all his machines should be consumed, called together, by sound of trumpet, those whose province it was to move them; and, by their help, brought them off before they were entirely destroyed. When it was day, he commanded all the darts and arrows that had been shot by the Rhodians to be carefully gathered, that he might from their numbers form some judgement of the number of machines in the city. Above 800 firebrands were found on the spot, and no fewer than

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than 1500 darts, all discharged in a very small portion of the night. This struck the prince himself with no small terror; for he never imagined that they would have been able to bear the charges of such formidable preparations. However, after having caused the slain to be buried, and given directions for the curing of the wounded, he applied himself to the repairing of his machines, which had been dismounted and rendered quite unserviceable.

17 They build a third wall.

In the mean time, the besieged, improving the respite allowed them by the removal of the machines, built a third wall in the form of a crescent, which took in all that part that was most exposed to the enemy's batteries; and, besides, drew a deep trench behind the breach, to prevent the enemy from entering the city that way. At the same time, they detached a squadron of their best ships, under the command of Amyntas, who made over to the continent of Asia; and there meeting with some privateers who were commissioned by Demetrius, took both the ships and the men, among whom were Timocles the chief of the pirates, and several other officers of distinction belonging to the fleet of Demetrius. On their return, they fell in with several vessels laden with corn for the enemy's camp, which they likewise took, and brought into the port. These were soon followed by a numerous fleet of small vessels loaded with corn and provisions sent them by Ptolemy, together with 1500 men, commanded by Antigonus a Macedonian of great experience in military affairs.—Demetrius, in the mean time, having repaired his machines, brought them up anew to the walls; which he incessantly battered till he opened a great breach and threw down several towers. But when he came to the assault, the Rhodians, under the command of Aminias, defended themselves with such resolution and intrepidity, that he was in three successive attacks repulsed with great slaughter, and at last forced to retire. The Rhodians likewise, on this occasion, lost several officers; and amongst others, the brave Aminias their commander.

18 Demetrius makes a breach in the walls, but is still repulsed.

While the Rhodians were thus signalizing themselves in the defence of their country, a second embassy arrived at the camp of Demetrius from Athens and the other cities of Greece, soliciting Demetrius to compose matters, and strike up a peace with the Rhodians. At the request of the ambassadors, who were in all above 50, a cessation of arms was agreed upon; but the terms offered by Demetrius being again rejected by the Rhodians, the ambassadors returned home without being able to bring the contending parties to an agreement. Hostilities were therefore renewed; and Demetrius, whose imagination was fertile in expedients for succeeding in his projects, formed a detachment of 1500 of his best troops, under the conduct of Alcimus and Mancius, two officers of great resolution and experience, ordering them to enter the breach at midnight, and, forcing the entrenchment behind it, to possess themselves of the posts about the theatre, where it would be no difficult matter to maintain themselves against any efforts of the townsmen. In order to facilitate the execution of so important and dangerous an undertaking, and amuse the enemy with false attacks, he at the same time, upon a signal given, ordered the rest of the army to set up a shout, and attack the city on all sides both by sea and land. By this means he hoped that, the besieged being alarmed in all parts, his detachment might find an opportunity of forcing the entrenchments which covered the breach, and afterwards of seizing the advantageous post about the theatre. This feint had all the success the prince could expect; for the troops having set up a shout from all quarters, as if they were advancing to a general assault, the detachment commanded by Alcimus and Mancius entered the breach, and fell upon those who defended the ditch, and the wall that covered it, with such vigour, that, having slain the most part of them and put the rest in confusion, they advanced to the theatre, and seized on the post adjoining to it. This occasioned a general uproar in the city, as if it had been already taken: but the commanding officers dispatched orders to the soldiers on the ramparts not to quit their posts, nor stir from their respective stations. Having thus secured the walls, they put themselves at the head of a chosen body of their own troops, and of those who were lately come from Egypt, and with these charged the enemy's detachment. But the darkness of the night prevented them from dislodging the enemy and regaining the advantageous posts they had seized. Day, however, no sooner appeared, than they renewed their attack with wonderful bravery. The Demetrians without the walls, with loud shouts endeavoured to animate those who had entered the place, and inspire them with resolution to maintain their ground till they were relieved with fresh troops. The Rhodians being sensible that their fortunes, liberties, and all that was dear to them in the world, lay at stake, fought like men in the utmost despair, the enemy defending their posts for several hours without giving ground in the least. At length the Rhodians, encouraging each other to exert themselves in defence of their country, and animated by the example of their leaders, made a last effort, and, breaking into the very heart of the enemy's battalion, there killed both their commanders. After their death the rest were easily put in disorder, and all to a man either killed or taken prisoners. The Rhodians likewise on this occasion lost many of their best commanders; and among the rest Damotetis, their chief magistrate, a man of extraordinary valour, who had signalized himself during the whole time of the siege.

19 His troops enter the breach;

20 but are all killed or taken.

Demetrius, not at all discouraged by this check, was making the necessary preparations for a new assault, when he received letters from his father Antigonus, enjoining him to conclude a peace with the Rhodians upon the best terms he could get, lest he should lose his whole army in the siege of a single town. From this time Demetrius wanted only some plausible pretence for breaking up the siege. The Rhodians likewise were now more inclined to come to an agreement than formerly; Ptolemy having acquainted them that he intended to send a great quantity of corn, and 3000 men to their assistance, but that he would first have them try whether they could make up matters with Demetrius upon reasonable terms. At the same time ambassadors arrived from the Ætolian republic, soliciting the contending parties to put an end to a war which might involve all the east in endless calamities.

An accident which happened to Demetrius in this conjuncture, did not a little contribute towards the wished-for pacification. This prince was preparing to advance his helepolis against the city, when a Rhodian engineer

21 The helepolis rendered useless.

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engineer found means to render it quite useless. He undermined the tract of ground over which the helepolis was to pass the next day in order to approach the walls. Demetrius not suspecting any stratagem of this nature, caused the engine to be moved forward, which coming to the place that was undermined, sunk so deep into the ground that it was impossible to draw it out again. This misfortune, if we believe Vegetius and Vitruvius, determined Demetrius to hearken to the Ætolian ambassadors, and at last to strike up a peace upon the following conditions: That the republic of Rhodes should be maintained in the full enjoyment of their ancient rights, privileges, and liberties, without any foreign garrison; that they should renew their ancient alliance with Antigonus, and assist him in his wars against all states and princes except Ptolemy king of Egypt; and that, for the effectual performance of the articles stipulated between them, they should deliver 100 hostages, such as Demetrius should make choice of, except those who bore any public employment.

22 The siege raised.

Thus was the siege raised, after it had continued a whole year; and the Rhodians amply rewarded all those who had distinguished themselves in the service of their country. They also set up statues to Ptolemy, Cassander, and Lysimachus; to all of whom they paid the highest honours, especially to the first, whom they worshipped as a god. Demetrius at his departure presented them with the helepolis, and all the other machines which he had employed in battering the city; from the sale of which, with some additional sums of their own, they erected the famous colossus. After this they applied themselves entirely to trade and navigation; by which means they became quite masters of the sea, and much more opulent than any of the neighbouring nations. As far as lay in their power, they endeavoured to preserve a neutrality with regard to the jarring nations of the east. However, they could not avoid a war with the Byzantines, the occasion of which was as follows: The Byzantines being obliged to pay a yearly tribute of 80 talents to the Gauls, in order to raise this sum, they came to a resolution of laying a toll on all ships that traded to the Pontic Sea. This resolution provoked the Rhodians, who were a trading nation, above all the rest. For this reason they immediately dispatched ambassadors to the Byzantines, complaining of the new tax; but as the Byzantines had no other method of satisfying the Gauls, they persisted in their resolution. The Rhodians now declared war, and prevailed upon Prusias king of Bithynia, and Attalus king of Pergamus, to assist them; by which confederacy the Byzantines were so intimidated, that they agreed to exact no toll from ships trading to the Pontic sea, the demand which had been the occasion of the war.

23 War with the Byzantines.

24 A dreadful earthquake at Rhodes.

About this time happened a dreadful earthquake, which threw down the colossus, the arsenal, and great part of the city walls of Rhodes; which calamity the Rhodians improved to their advantage, sending ambassadors to all the Grecian princes and states, to whom their losses were so much exaggerated, that their countrymen obtained immense sums of money under pretence of repairing them. Hiero king of Syracuse presented them with 100 talents; and, besides, exempted from all tolls and duties such as traded to Rhodes. Ptolemy king of Egypt gave them 100 talents, a million of measures of wheat, materials for building 20 quinqueremes and the like number of triremes; and besides, sent them 100 architects, 300 workmen, and materials for repairing their public buildings, to a great value, paying them moreover 14 talents a-year for the maintenance of the workmen whom he sent them. Antigonus gave them 100 talents of silver, with 10,000 pieces of timber, each piece being 16 cubits long; 7000 planks; 3000 pounds of iron, as many of pitch and rosin, and 1000 measures of tar. Chryseis, a woman of distinction, sent them 100,000 measures of wheat, and 3000 pounds of lead. Antiochus exempted from all taxes and duties the Rhodian ships trading to his dominions; presented them with 10 galleys, and 200,000 measures of corn, with many other things of great value. Prusias, Mithridates, and all the princes then reigning in Asia, made them proportionable presents; in short, all the Greek towns and nations, all the princes of Europe and Asia, contributed, according to their ability, to the relief of the Rhodians on that occasion; insomuch that their city not only soon arose from its ruins, but attained to an higher pitch of splendour than ever.

25 War with Philip of Macedon.

In the year 203 B. C. the Rhodians engaged in a war with Philip of Macedon. This monarch had invaded the territories of Attalus king of Pergamus; and because the Rhodians seemed to favour their ancient friend, sent one Heraclides, by birth a Tarentine, to set fire to their fleet; at the same time that he dispatched ambassadors into Crete, in order to stir up the Cretans against the Rhodians, and prevent them from sending any assistance to Attalus. Upon this war was immediately proclaimed. Philip at first gained an inconsiderable advantage in a naval engagement; but the next year was defeated with the loss of 11,000 men, while the Rhodians lost but 60 men and Attalus 70. After this he carefully avoided coming to an engagement at sea either with Attalus or the Rhodians. The combined fleet, in the mean time, sailed towards the island of Ægina in hopes of intercepting him: but having failed in their purpose, they sailed to Athens, where they concluded a treaty with that people; and, on their return, drew all the Cyclades into a confederacy against Philip. But while the allies were thus wasting their time in negociations, Philip, having divided his forces into two bodies, sent one, under the command of Philocles, to ravage the Athenian territories; and put the other aboard his fleet, with orders to sail to Meronea, a city on the north side of Thrace. He then marched towards that city himself with a body of forces, took it by assault, and reduced a great many others; so that the confederates would, in all probability, have had little reason to boast of their success, had not the Romans come to their assistance, by whose help the war was soon terminated to their advantage. In the war which took place between the Romans and Antiochus the Great king of Syria, the Rhodians were very useful allies to the former. The best part of their fleet was indeed destroyed by a treacherous contrivance of Polyxeniades the Syrian admiral; but they soon fitted out another, and defeated a Syrian squadron commanded by the celebrated Hannibal, the Carthaginian commander; after which, in conjunction with the Romans, they utterly defeated the whole Syrian fleet commanded by Polyxeniades; which together

26 The Rhodians assisted by the Romans.

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together with the loss of the battle of Magnesia, so dispirited Antiochus, that he submitted to whatever conditions the Romans pleased.

For these services the Rhodians were rewarded with the provinces of Lycia and Caria; but tyrannizing over the people in a terrible manner, the Lycians applied to the Romans for protection. This was readily granted; but the Rhodians were so much displeased with their interfering in this matter, that they secretly favoured Perses in the war which broke out between him and the Roman republic. For this offence the two provinces above mentioned were taken from them; but the Rhodians, having banished or put to death those who had favoured Perses, were again admitted into favour, and greatly honoured by the senate. In the Mithridatic war, their alliance with Rome brought upon them the king of Pontus with all his force; but having lost the greatest part of his fleet before the city, he was obliged to raise the siege without performing any remarkable exploit. In the war which Pompey made on the Cilician pirates, the Rhodians assisted him with all their naval force, and had a great share in the victories which he gained. In the civil war between Cæsar and Pompey, they assisted the latter with a very numerous fleet. After his death they joined Cæsar; which drew upon them the resentment of C. Cassius, who advanced to the island of Rhodes with a powerful fleet, after having reduced the greatest part of the continent. The Rhodians, terrified at his approach, sent ambassadors intreating him to make up matters in an amicable manner, and promising to stand neuter, and recal the ships which they had sent to the assistance of the triumviri. Cassius insisted upon their delivering up their fleet to him, and putting him in possession both of their harbour and city. This demand the Rhodians would by no means comply with, and therefore began to put themselves in a condition to stand a siege; but first sent Archelaus, who had taught Cassius the Greek tongue while he studied at Rhodes, to intercede with his disciple in their behalf. Archelaus could not, with all his authority, prevail upon him to moderate his demands; wherefore the Rhodians, having created one Alexander, a bold and enterprising man, their prætor or prytanis, equipped a fleet of 33 sail, and sent it out under the command of Museus, an experienced sea-officer, to offer Cassius battle. Both fleets fought with incredible bravery, and the victory was long doubtful: but the Rhodians, being at length overpowered by numbers, were forced to return with their fleet to Rhodes; two of their ships being sunk, and the rest very much damaged by the heavy ships of the Romans. This was the first time, as our author observes, that the Rhodians were fairly overcome in a sea-fight.

27 Rhodes besieged by Mithridates without success.

28 The Rhodians defeated in two naval engagements by Cassius,

Cassius, who had beheld this fight from a neighbouring hill, having refitted his fleet, which had been no less damaged than that of the Rhodians, repaired to Loryma, a stronghold on the continent belonging to the Rhodians. This castle he took by assault; and from hence conveyed his land-forces, under the conduct of Fannius and Lentulus, over into the island. His fleet consisted of 80 ships of war and above 200 transports. The Rhodians no sooner saw this mighty fleet appear, but they went out again to meet the enemy. The second engagement was far more bloody than the first; many ships were sunk, and great numbers of men killed on both sides. But victory anew declared for the Romans; who immediately blocked up the city of Rhodes both by sea and land. As the Rhodians had not had time to furnish the city with sufficient store of provisions, some of the inhabitants, fearing that if it were taken either by assault or by famine, Cassius would put all the inhabitants to the sword, as Brutus had lately done at Xanthus, privately opened the gate to him, and put him in possession of the town, which he nevertheless treated as if it had been taken by assault. He commanded 50 of the chief citizens, who were suspected to favour the adverse party, to be brought before him, and sentenced them all to die; others, to the number of 25, who had commanded the fleet or army, because they did not appear when summoned, he proscribed. Having thus punished such as had either acted or spoken against him or his party, he commanded the Rhodians to deliver up to him all their ships, and whatever money they had in the public treasury. He then plundered the temples; stripping them of all their valuable furniture, vessels, and statues. He is said not to have left one statue in the whole city, except that of the sun; bragging, at his departure, that he had stripped the Rhodians of all they had, leaving them nothing but the sun. As to private persons, he commanded them, under severe penalties, to bring to him all the gold and silver they had, promising, by a public crier, a tenth part to such as should discover any hidden treasures. The Rhodians at first concealed some part of their wealth, imagining that Cassius intended by this proclamation only to terrify them; but when they found he was in earnest, and saw several wealthy citizens put to death for concealing only a small portion of their riches, they desired that the time prefixed for the bringing in their gold and silver might be prolonged. Cassius willingly granted them their request; and then through fear they dug up what they had hid under ground, and laid at his feet all they were worth in the world. By this means he extorted from private persons above 8000 talents. He then fined the city in 500 more; and leaving L. Varus there with a strong garrison to exact the fine without any abatement, he returned to the continent.

29 Who takes and cruelly pillages the city.

After the death of Cassius, Marc Antony restored the Rhodians to their ancient rights and privileges; bestowing upon them the islands of Andros, Naxos, Tenos, and the city of Myndus. But these the Rhodians so oppressed and loaded with taxes, that the same Antony, though a great friend to the Rhodian republic, was obliged to divest her of the sovereignty over those places, which he had a little before so liberally bestowed upon her. From this time to the reign of the emperor Claudius we find no mention made of the Rhodians. That prince, as Dion informs us, deprived them of their liberty for having crucified some Roman citizens. However, he soon restored them to their former condition, as we read in Suetonius and Tacitus. The latter adds, that they had been as often deprived of, as restored to, their liberty, by way of punishment or reward for their different behaviour, as they had obliged the Romans with their assistance in foreign wars, or provoked them with their seditions at home. Pliny, who wrote in the beginning of Vespasian's reign, style Rhodes a *beautiful and free town*. But this liberty they did not long enjoy, the island became soon after reduced by

30 Rhodes reduced to a Roman province by Vespasian.

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by the same Vespasian to a Roman province, and obliged to pay a yearly tribute to their new masters. This province was called the *province of the islands*. The Roman prætor who governed it resided at Rhodes, as the chief city under his jurisdiction; and Rome, notwithstanding the eminent services rendered her by this republic, thenceforth treated the Rhodians not as allies, but vassals.

31 Expeditions of Villaret grand-master of the knights of Jerusalem against Rhodes.

The island of Rhodes continued subject to the Romans till the reign of the emperor Andronicus; when Villaret, grand-master of the knights of Jerusalem, then residing in Cyprus, finding himself much exposed to the attacks of the Saracens in that island, resolved to exchange it for that of Rhodes. This island too was almost entirely occupied by the Saracens; Andronicus the eastern emperor possessing little more in it than a castle. Nevertheless he refused to grant the investiture of the island to Villaret. The latter, without spending time in fruitless negociations, sailed directly for Rhodes, where he landed his troops, provisions, and warlike stores, in spite of the opposition made by the Saracens, who then united against the common enemy. As Villaret foresaw that the capital must be taken before he could reduce the island, he instantly laid siege to it. The inhabitants defended themselves obstinately, upon which the grand-master thought proper to turn the siege into a blockade; but he soon found himself so closely surrounded by the Greeks and Saracens, that he could get no supply either of forage or provisions for his army. But having at length obtained a supply of provisions by means of large sums borrowed of the Florentines, he came out of his trenches and attacked the Saracens, with a full resolution either to conquer or die. A bloody fight ensued, in which a great number of the bravest knights were killed: but at length the Saracens gave way, and fled to their ships; upon which the city was immediately assaulted and taken. The Greeks and other Christians had their lives and liberties given them, but the Saracens were all cut to pieces. The reduction of the capital was followed by that of all the other places of inferior strength throughout the island; and in four years after their landing, the whole was subjugated, and the conquerors took the title of the *Knights of Rhodes*. For many years those knights continued the terror of the Saracens and Turks, and sustained a severe siege from Mohammed II. who was compelled to abandon the enterprise; but at length the Turkish sultan Solyman resolved at all events to drive them from it. Before he undertook the expedition, he sent a message commanding them to depart from the island without delay; in which case he promised that neither they nor the inhabitants should suffer any injury, but threatened them with his utmost vengeance if they refused his offer. The knights, however, proving obstinate, Solyman attacked the city with a fleet of 400 sail and an army of 140,000 men.

32 He conquers the Saracens, and reduces the island.

33 The city besieged by Solyman.

The trenches were soon brought close to the counterscarp, and a strong battery raised against the town; which, however, did but little damage, till the sultan being informed by a spy of this particular, and that he was in danger of receiving some fatal shot from the tower of St John which overlooked his camp, he planted a battery against that tower, and quickly brought it down. Solyman, however, finding the whole place in some measure covered with strong fortifications of such height as to command all his batteries, ordered an immense quantity of stones and earth to be brought; in which so great a number of hands were employed night and day by turns, that they quickly raised a couple of hillocks high enough to overtop the city walls. They plied them accordingly with such a continual fire, that the grand-master was obliged to cause them to be strongly propped within with earth and timber. All this while the besieged, who, from the top of the grand-master's palace, could discover how their batteries were planted, demolished them with their cannon almost as fast as they raised them.

34 Terribly battered.

Here the enemy thought proper to alter their measures, and to plant a strong battery against the tower of St Nicholas, which, in the former siege by Mohammed, had resisted all the efforts of the then grand-vizier. This the bashaw of Romania caused to be battered with 12 large pieces of brass cannon, but had the mortification to see them all dismounted by those of the tower: to prevent which in future, he ordered them to be fired only in the night, and in the day had them covered with gabions and earth. This had such success, that, after 5000 cannon shot, the wall began to shake and tumble into the ditch; but he was surprised to find another wall behind it well terraced, and bordered with artillery, and himself obliged either to begin afresh or give up the enterprise: and yet this last was what Solyman preferred, when he was told of it being built on a hard rock, incapable of being sapped, and how firmly it had held out against all the efforts of Mohammed's vizier. The next attack was therefore ordered by him to be made against the bastions of the town, and that with a vast number of the largest artillery, which continued firing during a whole month; so that the new wall of the bastion of England was quite demolished, though the old one stood proof against all their shot. That of Italy, which was battered by 17 large pieces of cannon, was still worse damaged; upon which Martinengo the engineer advised the grand-master to cause a sally to be made on the trenches of the enemy out of the breach, whilst he was making fresh intrenchments behind it. His advice succeeded; and the 200 men who sallied out sword in hand having surprised the Turks in the trench, cut most of them in pieces. At the same time a new detachment, which was sent to repulse them, being obliged, as that engineer rightly judged, to pass by a spot which lay open to their artillery, were likewise mostly destroyed by the continual fire that came from it, whilst the assailants were employed in filling up several fathoms of the trench before they retired. By that time the breach had been repaired with such new works, that all the efforts to mount it by assault proved equally ineffectual and destructive.

35 The besieged want powder, but find means to supply the defect.

Unfortunately for the besieged, the continual fire they had made caused such a consumption of their powder, that they began to feel the want of it; the perfidious d'Amarald, whose province it had been to visit the magazines of it, having amused the council with a false report, that there was more than sufficient to maintain the siege, though it should last a whole twelvemonth. But here the grand-master found means to supply in some measure that unexpected defect, by the cautious provision he had made of a large quantity of saltpetre, which was immediately ground and made into gunpowder, though he was at the same time obliged to order the engineers

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to be more sparing of it for the future, and to make use of it only in the defence of such breaches as the enemy should make.

All this while the Turks had not gained an inch of ground; and the breaches they had made were so suddenly either repaired or defended by new intrenchments, that the very rubbish of them must be mounted by assault.

36 Desperate encounters in mines, &c.

Solyman, therefore, thought it now advisable to set his numerous pioneers at work, in five different parts, in digging of mines, each of which led to the bastion opposite to it. Some of these were countermined by a new invented method of Martinengo; who, by the help of braced skins, or drums, could discover where the miners were at work. Some of these he perceived, which he caused to be opened, and the miners to be driven out by hand grenadoes; others to be smothered, or burned, by setting fire to gunpowder. Yet did not this hinder two considerable ones to be sprung, which did a vast deal of damage to the bastion of England, by throwing down about six fathoms of the wall, and filling up the ditch with its rubbish; whereupon the Turks immediately climbed up sword in hand to the top of it, and planted seven of their standards upon the parapet; but being stopped by a traverse, the knights, recovering from their surprise fell upon them with such fury, that they were obliged to abandon it with great loss. The grand-master, who was then at church, quickly came to the place with his short pike in his hand, attended by his knights, encouraging all he met with, burghers, soldiers, and others, to fight bravely in defence of their religion and country, and arrived time enough to assist in taking down their standards, and driving down the enemy by the way they came up. In vain did the vizier Mustapha endeavour to prevent their flight by killing some of the foremost with his sword, and driving the rest back; they were obliged to abandon the bastion, and, which was still worse, met with that death in their flight, which they had strove to shun from the fire-arms which were discharged upon them from the ramparts. Three sangiacs lost their lives in this attack, besides some thousands of the Turks; the grand-master, on his side, lost some of his bravest knights, particularly his standard-bearer.

The attacks were almost daily renewed with the same ill sucess and loss of men, every general striving to signalize himself in the sight of their emperor. At length the old general Peri, or Pyrrus, having harassed the troops which guarded the bastion of Italy for several days successively without intermission, caused a strong detachment, which he had kept concealed behind a cavalier, to mount the place by break of day, on the 13th of September; where, finding them overcome with sleep and fatigue, they cut the throats of the sentinels, and sliding through the breach, were just going to fall upon them.

The Italians, however, quickly recovered themselves and their arms, and gave them an obstinate repulse. The contest was fierce and bloody on both sides; and the bashaw, still supplying his own with new reinforcements, would hardly have failed of overpowering the others had not the grand-master, whom the alarm had quickly reached, timely intervened, and by his presence, as well as example, revived his Rhodians, and thrown a sudden panic among the enemy. Pyrrus, desirous to do something to wipe off the disgrace of this repulse, tried his fortune next on an adjoining work, lately raised by the grand-master Carettii: but here his soldiers met with a still worse treatment, being almost overwhelmed with the hand-grenadoes, melted pitch, and boiling oil, which came pouring upon them, whilst the forces which were on the adjacent flanks made as great a slaughter of those that fled; insomuch that the janissaries began to resume their old murmuring tone, and cry out that they were brought thither only to be slaughtered.

The grand vizier Mustapha, afraid lest their complaints should reach his master, agreed at length, as the last resort, to make a fresh attempt on the bastion of England, whilst, to cause a diversion, the bashaw Achmed sprung some fresh mines at an opposite part of the city. This was accordingly executed on the 17th of September; when the former, at the head of five battalions, resolutely mounted or rather crept up the breach, and, in spite of the fire of the English, advanced so far as to pitch some standards on the top; when, on a sudden, a crowd of English knights, commanded by one Bonk, or Burk, sallied out of their intrenchments, and, assisted by some other officers of distinction, obliged them to retire, though in good order. Mustapha, provoked at it, led them back, and killed several knights with his own hand; and had his men supported him as they ought, the place must have been yielded to him: but the fire which was made from the adjacent batteries and musketry disconcerted them to such a degree, that neither threats nor entreaties could prevent their abandoning the enterprise, and dragging him away with them by main force. The Rhodians lost in that action several brave knights, both English and German; and, in particular, John Burk, their valiant commander: but the Turks lost above 3000 men, besides many officers of distinction. Much the same ill success having attended Achmed with his mines, one of which had been opened, and the other only bringing some fathoms of the wall down, he was also obliged to retreat; his troops, though some of the very best, being forced to disperse themselves, after having borne the fire and fury of the Spanish and Auvergnian knights as long as they were able.

By this time Solyman, ashamed and exasperated at his ill success, called a general council; in which he made some stinging reflections on his vizier, for having represented the reduction of Rhodes as a very easy enterprise. To avoid the effects of the sultan's resentment, the subtle Mustapha declared, that hitherto they had fought the enemy as it were upon equal terms, as if they had been afraid of taking an ungenerous advantage of their superiority, by which, said he, we have given them an opportunity of opposing us with their united force wherever we attacked them. But let us now resolve upon a general assault on several sides of the town; and see what a poor defence their strength, thus divided, will be able to make against our united force. The advice was immediately approved by all, and the time appointed for the execution of it was on the 24th of that month, and every thing was ordered to be got ready against that day. Accordingly the town was equally assaulted at four different parts, after having suffered a continual fire for some time from their artillery in order to widen the breaches; by which the grand-master easily understood their design, and that the bastions of England and Spain, the post of Provence, and terrace of Italy, were pitched upon for the assault, and took his precautions accordingly.

37 An assault in four different places at once.

The morning was no sooner come, than each party mounted

mounted their respective breach with an undaunted bravery, the young sultan, to animate them the more, having ordered his throne to be reared on an eminence, whence he could see all that was done. The Rhodians, on the other hand, were no less diligent in repulsing them with their cannon and other fire arms, with their melted lead, boiling oil, stink pots, and other usual expedients. The one side ascend the scaling ladders, fearless of all that opposed them; the other overturn their ladders, and send them tumbling down headlong into the ditches, where they were overwhelmed with stones, or dispatched with darts and other missile weapons. The bastion of England proves the scene of the greatest slaughter and bloodshed; and the grand-master makes that his post of honour, and, by his presence and example, inspires his men with fresh vigour and bravery, whilst the continual thunder of his artillery makes such horrid work among the assailants as chills all their courage, and forces them to give way: the lieutenant-general, who commands the attack, leads them back with fresh vigour, and mounts the breach at the head of all; immediately after comes a cannon-ball from the Spanish bastion, which overturns him dead into the ditch. This disaster, instead of fear and dread, fills them with a furious desire of revenging his death: but all their obstinacy cannot make the Rhodians go one step back, whilst the priests, monks, young men and old, and even women of every rank and age, assist them with an uncommon ardour and firmness; some in overwhelming the enemy with stones, others in destroying them with melted lead, sulphur, and other combustibles; and a third sort in supplying the combatants with bread, wine, and other refreshments.

The assault was no less desperate and bloody on the bastion of Spain, where the knights, who guarded it, not expecting to be so soon attacked, and ashamed to stand idle, were assisting the bastion of Italy; which gave the Turks an opportunity to mount the breach, and penetrate as far as their intrenchments, where they planted no less than 30 of their standards on them. The grand-master was quickly apprised of it, and ordered the bastion of Auvergne to play against them; which was done with such diligence, and such continual fire, whilst the Rhodians enter the bastion by the help of their casemates, and, sword in hand, fall upon them with equal fury, that the Turks, alike beset by the fire of the artillery and the arms of the Rhodian knights, were forced to abandon the place with a considerable loss. The aga with great bravery rallies them afresh, and brings them back, by which time the grand-master likewise appeared. The fight was renewed with greater fierceness; and such slaughter was made on both sides, that the grand-master was obliged to draw 200 men out of St Nicholas tower to his assistance; these were commanded by some Roman knights, who led them on with such speed and bravery, that their very appearance on the bastion made the janissaries draw back; which Solyman observing from his eminence, caused a retreat to be sounded, to conceal the disgrace of their flight. In these attacks there fell about 15,000 of his best troops, besides several officers of distinction. The loss of the besieged was no less considerable, if we judge from the small number of their forces; but the greatest of all to them was that of some of their bravest and most distinguished knights and commanders, many of whom were killed, and scarce any escaped unwounded. But the most dreadful fate of all had like to have fallen on the favourite vizier Mustapha, who had proposed this general assault; the ill success of which had so enraged the proud sultan, that he condemned him to be shot with arrows at the head of his army; which dreadful sentence was just ready to be executed, when the old bashaw, by his intreaties, obtained a suspension of it, in hopes that, when his fury was abated, he should also obtain his pardon.

Solyman, however, was so discouraged by his ill successes, that he was on the point of raising the siege, and would have actually done so, had he not been diverted from it by the advice which he received from an Albanian deserter, some say by a letter from the traitor d'Amarald, that the far greater part of the knights were either killed or wounded, and those that remained altogether incapable of sustaining a fresh assault. This having determined him to try his fortune once more, the command of his forces was turned over to the bashaw Achmed; and, to show that he designed not to stir till he was master of the place, he ordered a house to be built on the adjacent mount Philermo for his winter-quarters. Achmed marched directly against the bastion of Spain, which had suffered the most; where, before he could open the trenches, his men fell thick and threefold by the constant fire both of small and great guns from the bastion of Auvergne. He lost still a much greater number in rearing a rampart of earth to cover the attack, and give him an opportunity of sapping the wall; and, as soon as he saw a large piece fall, ordered his men to mount the breach. They were no sooner come to the top, than they found a new work and intrenchments which Martinengo had reared; and there they were welcomed with such a brisk fire from the artillery, that they were glad to recover their trenches with the utmost precipitation after having lost the much greater part of their men. The attack was renewed, and a reciprocal fire continued with great obstinacy, till a musket-shot deprived that indefatigable engineer of one of his eyes, and the order of his assiduous services for some time. The grand-master, having ordered him to be carried to his palace, took his place, and kept it till he was quite cured, which was not till 34 days after; and continued all the time in the intrenchments with his handful of knights, scarcely allowing himself rest night or day, and ever ready to expose himself to the greatest dangers, with an ardour more becoming a junior officer than an old worn out sovereign; which made his knights more lavish of their own lives than their paucity and present circumstances could well admit of.

Soon after this, the treason of d'Amarald was discovered, and he was condemned to death and executed; but by this time the city was reduced to the last extremity. The pope, emperor, and other crowned heads, had been long and often importuned by the grand-master for speedy assistance, without success; and, as an addition to all the other disasters, those succours which were sent to him from France and England perished at sea. The new supply which he had sent for of provisions from Candia had the same ill fate; so that the winds, seas, and every thing, seemed combined to bring on the destruction of that city and order. The only resource which could be thought of, under so dismal a situation, was, to send for the few remaining knights and forces which were left to guard the other islands to come to the defence of their capital, in hopes that if

they could save this, the others might in time be recovered, in case the Turks should seize upon them. On the other hand, Solyman, grown impatient at the small ground his general had gained, gave him express orders to renew the attack with all imaginable speed and vigour, before the succours which he apprehended were coming from Europe, obliged him to raise the siege. Achmed instantly obeyed, raised a battery of 17 large cannon against the bastion of Italy, and quickly after made himself master of it, obliged the garrison to retire farther into the city. Here the grand-master was forced to demolish two of the churches, to prevent the enemy's seizing on them; and, with their materials, caused some new works and entrenchments to be made to hinder their proceeding farther.

The Turks, however, gained ground every day, though they still lost vast numbers of their men; at length the 30th of November came, when the grand-master, and both the besiegers and besieged, thought the last assault was to be given. The bashaw Pyrrus, who commanded it, led his men directly to the entrenchments; upon which the bells of all the churches sounded the alarm. The grand-master, and his few knights, troops, and citizens, ran in crowds, and in a confused disorderly manner, to the intrenchments, each fighting in his own way, or rather as his fear directed him. This attack would have proved one of the most desperate that had yet been felt, had not a most vehement rain intervened, which carried away all the earth which the enemy had reared to serve them as a rampart against the artillery of the bastion of Auvergne; so that being now quite exposed to their continual fire, they fell in such great numbers, that the bashaw could no longer make them stand their ground, but all precipitately fled towards their camp. This last repulse threw the proud sultan into such a fury, that none of his officers dared to come near him; and the shame of his having now spent near six whole months with such a numerous army before the place, and having lost such myriads of his brave troops with so little advantage, had made him quite desperate, and they all dreaded the consequences of his resentment.

Pyrrus at length, having given it time to cool, ventured to approach him, and propose a new project to him, which, if approved, could hardly fail of success; which was, to offer the town a generous capitulation; and he observed, that in case the stubborn knights should reject it, yet being now reduced to so small a number, as well as their forces and fortifications almost destroyed, the citizens, who were most of them Greeks, and less ambitious of glory than solicitous for their own preservation, would undoubtedly accept of any composition that should secure to them their lives and effects.

This proposal being relished by the sultan, letters were immediately dispersed about the city in his name, exhorting them to submit to his government, and threatening them at the same time with the most dreadful effects of his resentment if they persisted in their obstinacy. Pyrrus likewise dispatched a Genoese to approach as near as he could to the bastion of Auvergne, and to intreat the knights to take pity of so many of their Christian brethren, and not expose them to the dreadful effects which must follow their refusal of a capitulation, so generously offered them at their last extremity. Other agents were likewise employed in other places: to all of whom the grand-master ordered some of his men to return this answer, That his order never treated with infidels but with sword in hand. An Albanian was sent next with a letter from the sultan to him, who met with the same repulse; after which, he ordered his men to fire upon any that should present themselves upon the same pretences; which was actually done. But this did not prevent the Rhodians from listening to the terms offered by the Turks, and holding frequent cabals upon that subject; in which the general massacre of a town taken by assault, the dreadful slavery of those that escaped, the rape of their wives and daughters, the destruction of their churches, the profanation of their holy relics and sacred utensils, and other dire consequences of an obstinate refusal, being duly weighed against the sultan's offers, quickly determined their choice. The grand-master, however, proving inexorable to all their intreaties, they applied to their Greek metropolitan, who readily went and represented all these things to him in the most pathetic terms: Yet he met with no better reception; but was told that he and his knights were determined to be buried under the ruins of the city if their swords could no longer defend it, and he hoped their example would not permit them to show less courage on that occasion. This answer produced a quite contrary effect; and, as the citizens thought delays dangerous at such a juncture, they came in a body to him by the very next morning, and plainly told him, that if he paid no greater regard to their preservation, they would not fail of taking the most proper measures to preserve the lives and chastity of their wives and children.

This resolution could not but greatly alarm the grand-master; who thereupon called a council of all the knights, and informed them himself of the condition of the place. These all agreed, particularly the engineer Martinengo, that it was no longer defensible, and no other resource left but to accept the sultan's offers; adding, at the same time, that though they were all ready, according to the obligations of their order, to fight to the last drop of their blood, yet it was no less their duty to provide for the safety of the inhabitants, who, not being bound by the same obligations, ought not to be made a sacrifice to their glory. It was therefore agreed, with the grand-master's consent, to accept of the next offers the sultan should make. He did not let them wait long: for the fear he was in of a fresh succour from Europe, the intrepidity of the knights, and the shame of being forced to raise the siege, prevailed upon him to hang out his pacific flag, which was quickly answered by another on the Rhodian side; upon which the Turks, coming out of their trenches, delivered up the sultan's letter for the grand-master, to the grand-prior of St Giles, and the engineer Martinengo. The terms offered in it by Solyman appeared so advantageous, that they immediately exchanged hostages; and the knights that were sent to him had the honour to be introduced to him, and to hear them confirmed by his own mouth, though not without threats of putting all to fire and sword in case of refusal, or even delay. Two ambassadors were forthwith sent to him, to demand a truce of three days to settle the capitulation and interests of the inhabitants, who were part Greeks and part Latins; but this was absolutely refused by the impatient monarch, out of a suspicion of the rumoured succour being near, and that the truce was only to gain time till it was come.

He therefore ordered the hostilities to be renewed with fresh fury; in which the Rhodians made a most noble,

noble defence, considering their small number, and that they had now only the barbican or false bray of the bastion of Spain left to defend themselves, and once more repulsed the enemy: at which the sultan was so enraged, that he resolved to overpower them by numbers on the next day; which was, after a stout defence, so effectually done, that they were forced to abandon that outwork, and retire into the city. In the meanwhile, the burghers, who had but a day or two before raised a fresh uproar against the grand-master, under pretence that he was going to give them up a prey to an infidel who regarded neither oaths nor solemn treaties, perceiving their own danger, came now to desire him to renew the negociations, and only begged the liberty of sending one of their deputies along with his, to secure their interests in the capitulation. He readily consented to it; but gave them a charge to show the bashaw Achmed the treaty formerly concluded between Bajazet and his predecessor d'Aubuisson, in which the former had entailed a dreadful curse on any of his successors that should infringe it. This was done, in hopes that the showing it to his master, who valued himself so much upon his strict observance of his law, might produce some qualm in him which might lengthen the agreement, for they were still as much in hopes of a succour from Europe as he was in fear of it; but to their great surprise, Achmed had no sooner perused than he tore it all in pieces, trampled it under his feet, and in a rage ordered them to be gone. The grand-master found no other resource than to send them back to him the next day; when that minister, who knew his master's impatience to have the affair concluded, quickly agreed with them upon the terms, which were in substance as follow:

1. That the churches should not be profaned. 2. That the inhabitants should not be forced to part with their children to be made janissaries. 3. That they should enjoy the free exercise of their religion. 4. That they should be free from taxes during five years. 5. That those who had a mind to leave the island should have free leave to do so. 6. That if the grand-master and his knights had not a sufficient number of vessels to transport themselves and their effects into Candia, the sultan should supply that defect. 7. That they should have twelve days allowed them, for the signing of the articles, to send all their effects on board. 8. That they should have the liberty of carrying away their relics, chalices, and other sacred utensils belonging to the great church of St John, together with all their ornaments and other effects. 9. That they should likewise carry with them all the artillery with which they were wont to arm the galleys of the order, &c.

From this time the island of Rhodes has been subject to the Turks; and, like other countries subject to that tyrannical yoke, has lost its former importance. The air is good, and the soil fertile, but ill cultivated. The capital is surrounded with triple walls and double ditches, and is looked upon to be impregnable. It is inhabited by Turks and Jews; the Christians being obliged to occupy the suburbs, as not being allowed to stay in the town during the night. The town is situated in E. Long. 28. 25. N. Lat. 36. 54.

RHODIOLA, Rose-wort; a genus of plants belonging to the diœcia class; and in the natural method ranking under the 13th order, *Succulentæ*. See Botany *Index*.

RHODIUM, a metal which is obtained from the ores of Platina. See Chemistry; and under Platina, Ores, Reduction of, &c.

Oil of Rhodium, an essential oil obtained from a species of aspalathus.

RHODODENDRON, Dwarf Rose-bay; a genus of plants belonging to the decandria class; and in the natural method ranking under the 18th order, *Bicornes*. See Botany *Index*.

RHODORA, a genus of plants belonging to the decandria class. See Botany *Index*.

RHOEA. See Rhea, Ornithology *Index*.

RHOEADEÆ (*rhœas*, Linnæus's name, after Dioscorides, for the red poppy), the name of the 27th order in Linnæus's fragments of a natural method, consisting of poppy and a few genera which resemble it in habit and structure. See Botany *Index*.

RHOMBOIDES, in *Geometry*, a quadrilateral figure whose opposite sides and angles are equal, but is neither equilateral nor equiangular.

Rhomboides, in *Anatomy*, a thin, broad, and obliquely square fleshy muscle, situated between the basis of the scapula and the spina dorsi; so called from its figure. Its general use is to draw backward and upward the subspinal portion of the basis scapulæ.

RHOMBUS, in *Geometry*, an oblique-angled parallelogram, or quadrilateral figure, whose sides are equal and parallel, but the angles unequal, two of the opposite ones being obtuse and two acute.

Rhomb Solid, consists of two equal and right cones joined together at their bases.

RHONE, one of the largest rivers in France, which, rising among the Alps of Switzerland, passes through the lake of Geneva, visits that city, and then runs south-west to Lyons; where, joining the river Soane, it continues its course due south, passing by Orange, Avignon, and Arles, and falls into the Mediterranean a little above Marseilles.

Rhone, is also the name of a department in the south-east of France, of which Lyons is the chief town. It lies along the west side of the river Rhone; it is rather mountainous, not very fertile in grain, but abounding in good pasturage, and producing excellent wines. Its extent is about 1039 square English miles, and its population in 1815 was 347,881 persons. The contributions for the year 1802 amounted to 4,391,838 francs.

RHOPIUM, a genus of plants, belonging to the gynandria class; and in the natural method ranking with those that are doubtful. See Botany *Index*.

RHUBARB. See Rheum, Botany and Materia Medica *Index*.

RHUMB, in *Navigation*, a vertical circle of any given place, or intersection of such a circle with the horizon; in which last sense rhumb is the same with a point of the compass.

Rhumb Line is also used for the line which a ship describes when sailing in the same collateral point of the compass, or oblique to the meridians.

RHUNKENIUS, David, an eminent classical scholar, was born at Stolpen in Prussian Pomerania, in the year 1723. Of the early part of his studies little is known, but it appears that he was some time at Schlaff, from which he removed to Konigsberg, where he met with the celebrated Kant, whose system has so much engaged the attention of Europe. He afterwards went to Gottingen

Gottingen, to attend the learned Gesner, and to enlarge his knowledge of the Greek language. Some time after this period he formed an acquaintance with Ritter and Berger while he resided at Witteburg, where he continued about two years; and his first public attempt, being a thesis *De Galla Placidia Augusta*, daughter of Theodosius, and the sister of Arcadius and Honorius, was in this place. Rhunkenius was engaged to go to Leyden by Ernesti, to complete his knowledge of ancient literature. He gave up the study of divinity, for which he was at first designed and prevailed with his parents to allow him to go to Leyden, where he arrived with recommendations to many of the learned, and pursued his studies with avidity and zeal, accompanying Alberti in his visit to the Spa in the year 1750. Hemsterhuis wished to attach him to Holland, urging him to persevere in the study of the law, as affording an additional chance of employment. This advice he thought proper to follow, and published a translation of some works of Theodorus, Stephanus, and some other celebrated lawyers in the time of Justinian, which he found in manuscript in the university of Leyden.

He went to Paris in the year 1755, where Caperomer, who was at that time keeper of the king's library, kindly received him; and he formed an acquaintance with Dr S. Musgrave and Mr T. Tyrwhit, who were there for the purpose of examining the manuscripts of Euripides. He had also formed the resolution of going to Spain, but Hemsterhuis recalled him, as he needed his assistance as lecturer in the Greek tongue. In 1755, Rhunkenius took possession of his office, and read an excellent discourse *De Græcia Artium et Doctrinarum Inventrice*.

About this time he was useful to Ernesti, in his edition of Callimachus; and in 1761, he succeeded Oudendorp as professor of history and of eloquence, delivering an oration *De Doctore Umbratico*. About a year after this event, Rhunkenius was offered the chair of Gesner by the university of Gottingen, which he declined accepting, but he recommended Heyne, who was the successful candidate.

In 1764 he married an Italian lady, who, about 6 years afterwards, lost both her speech and sight by a stroke of apoplexy. She had two daughters, one of whom was afterwards blind, and the wife of our author survived her husband. The desire of Rhunkenius to do Ernesti a favour, made him turn his attention to the Memorabilia of Xenophon; and he was led to examine with particular attention, the treatise of Longinus on the sublime. Having risen superior to his domestic misfortunes about the year 1772, he pursued his new edition of Velleius Paterculus and he prepared a second edition of Epistolæ Criticæ, and a collection of Scholia on Plato. In the year 1766, he published a valuable little tract *De Vita et Scriptis Longini*, in the form of a thesis, to which he prefixed the name of one of his pupils. His Velleius Paterculus appeared in 1779, and in 1780 Homer's reputed hymn to Ceres. In 1786, he published the first part of Apuleius, which had been prepared by Oudendorp, and a new edition of his own Timæus in 1789, and at the same time he collected and published the works of Mark-Anthony Murat, in 5 vols. 8vo.

Both the body and mind of Rhunkenius were much weakened in consequence of the loss of friends, an attack of the gout, and the misfortunes of the Batavian republic; but he was in some measure relieved by the satisfaction he felt at the dedication of Homer by Wolf, although he was not of that writer's opinion that the works of Homer were written by different authors. He sunk into a kind of stupor on the 14th of May, 1798, which in two days put a period to his existence.

His knowledge and learning were unquestionably great, and he was allowed to be lively, cheerful, and gay, even to an extreme. Many posthumous honours were conferred upon him, and a pension settled on his unfortunate widow. When Whyttenbach took possession of Rhunkenius's chair, he delivered a discourse on the early age of Rhunkenius, which he proposed as an example to the Batavian youth who made the belles lettres their study.

RHUS, Sumach, a genus of plants, belonging to the pentandria class; and in the natural method ranking under the 43d order, *Dumosæ*. See Botany *Index*.

1. The coriaria, or elm-leaved sumach, grows naturally in Italy, Spain, Turkey, Syria, and Palestine. The branches of this tree are used instead of oak-bark for tanning of leather; and it is said that the Turkey leather is all tanned with this shrub. It has a ligneous stalk, which divides at bottom into many irregular branches, rising to the height of eight or ten feet; the bark is hairy, of an herbaceous brown colour; the leaves are winged composed of seven or eight pair of lobes, terminated by an odd one, bluntly sawed on their edges, hairy on their under side, of a yellowish-green colour, and placed alternately on the branches; the flowers grow in loose panicles on the end of the branches, which are of a whitish herbaceous colour, each panicle being composed of several spikes of flowers fitting close to the footstalks. The leaves and seeds of this sort are used in medicine, and are esteemed very restringent and styptic.

2. The typhinum, Virginian sumach, or vinegar plant, grows naturally in almost every part of North America. This hath a woody stem, with many irregular branches, which are generally crooked and deformed. The young branches are covered with a soft velvet-like down, resembling greatly that of a young stag's horn, both in colour and texture, from whence the common people have given it the appellation of *stag's horn*; the leaves are winged, composed of six or seven pair of oblong heart-shaped lobes, terminated by an odd one, ending in acute points, hairy on their under side, as is also the midrib. The flowers are produced in close tufts at the end of the branches, and are succeeded by seeds, inclosed in purple woody succulent covers; so that the bunches are of a beautiful purple colour in autumn; and the leaves, before they fall in autumn, change to a purplish colour at first, and before they fall to a feuille-mort. This plant, originally a native of North America, has been long cultivated in the north of Germany, and is lately introduced into Russia. It has got the name of the *vinegar plant* from the double reason of the young germen of its fruit, when fermented, producing either new or adding to the strength of old weak vinegar, whilst its ripe berries afford an agreeable acid, which might supply the place when necessary of the citric acid. The powerful astringency of this plant in all its parts recommends it as useful in several of the arts. As for example, the ripe berries boiled with alum make a good dye

dye for hats. The plant in all its parts may be used as a succedaneum for oak-bark in tanning, especially the white glove leather. It will likewise answer to prepare a dye for black, green, and yellow colours; and with martial vitriol it makes a good ink. The milky juice that flows from incisions made in the trunk or branches, makes when dried the basis of a varnish little inferior to the Chinese. Bees are remarkably fond of its flowers; and it affords more honey than any of the flowering shrubs, so that it may prove a useful branch of economy, where rearing these insects is an object. The natives of America use the dried leaves as tobacco.

3. The glabrum, with winged leaves, grows naturally in many parts of North America; this is commonly titled by the gardeners *New England sumach*. The stem of this is stronger and rises higher than that of the former; the branches spread more horizontally; they are not quite so downy as those of the last, and the down is of a brownish colour; the leaves are composed of many more pairs of lobes, which are smooth on both sides; the flowers are disposed in loose panicles, which are of an herbaceous colour.

4. The Carolinianum, with sawed winged leaves, grows naturally in Carolina; the seeds of this were brought from thence by the late Mr Catesby, who has given a figure of the plant in his Natural History of Carolina. This is by the gardeners called the *scarlet Carolina sumach*; it rises commonly to the height of seven or eight feet, dividing into many irregular branches, which are smooth, of a purple colour, and pounced over with a grayish powder, as are also the footstalks of the leaves. The leaves are composed of seven or eight pair of lobes, terminated by an odd one; these are not always placed exactly opposite on the midrib, but are sometimes alternate. The upper side of the lobes is of a dark green, and their under hoary, but smooth. The flowers are produced at the end of the branches in very close panicles, which are large, and of a bright red colour.

5. The Canadense, with winged spear-shaped leaves, grows naturally in Canada, Maryland, and several other parts of North America. This hath smooth branches of a purple colour, covered with a gray pounce. The leaves are composed of seven or eight pairs of lobes, terminated by an odd one; the lobes are spear-shaped, sawed on their edges, of a lucid green on their upper surface, but hoary on their under, and are smooth. The flowers are produced at the end of the branches in large panicles, which are composed of several smaller, each standing upon separate footstalks; they are of a deep red colour, and the whole panicle is covered with a gray pounce, as if it had been scattered over them.

6. The Copallinum, or narrow-leaved sumach, grows naturally in most parts of North America, where it is known by the title of *beach sumach*, probably from the place where it grows. This is of humbler growth than either of the former, seldom rising more than four or five feet high in Britain, dividing into many spreading branches, which are smooth, of a light brown colour, closely garnished with winged leaves, composed of four or five pair of narrow lobes, terminated by an odd one; they are of a light green on both sides, and in autumn change purplish. The midrib, which sustains the lobes, has on each side a winged or leafy border, which runs from one pair of lobes to another, ending in joints at each pair, by which it is easily distinguished from the other sorts. The flowers are produced in loose panicles at the end of the branches, of a yellowish herbaceous colour.

These six sorts are hardy plants, and will thrive in the open air here. The first and fourth sorts are not quite so hardy as the others, so must have a better situation, otherwise their branches will be injured by severe frost in the winter. They are easily propagated by seeds, which if sown in autumn the plants will come up the following spring; but if they are sown in spring, they will not come up till the next spring; they may be either sown in pots, or the full ground. If they are sown in pots in autumn, the pots should be placed under a common frame in winter, where the seeds may be protected from hard frost; and in the spring, if the pots are plunged into a very moderate hot-bed, the plants will soon rise, and have thereby more time to get strength before winter. When the plants come up, they must be gradually hardened to bear the open air, into which they should be removed as soon as the weather is favourable, placing them where they may have the morning sun; in the summer, they must be kept clean from weeds, and in dry weather watered. Toward autumn it will be proper to stint their growth by keeping them dry, that the extremity of their shoots may harden; for if they are replete with moisture, the early frosts in autumn will pinch them, which will cause their shoots to decay almost to the bottom if the plants are not screened from them. If the pots are put under a common frame in autumn, it will secure the plants from injury; for while they are young and the shoots soft, they will be in danger of suffering, if the winter proves very severe; but in mild weather they must always enjoy the open air, therefore should never be covered but in frost. The spring following, just before the plants begin to shoot, they should be shaken out of the pots, and carefully separated, so as not to tear the roots; and transplanted into a nursery, in rows three feet asunder, and one foot distance in the rows. In this nursery they may stand two years to get strength, and then may be transplanted where they are to remain.

7. Besides these, Linnæus has included in this genus the toxicodendron or poison tree, under the name of *rhus vernix* or *poison-ash*. This grows naturally in Virginia, Pennsylvania, New England, Carolina, and Japan, rising with a strong woody stalk to the height of 20 feet and upwards; though in this country it is seldom seen above 12, by reason of the plants being extremely tender. The bark is brown, inclining to gray; the branches are garnished with winged leaves composed of three or four pair of lobes terminated by an odd one. The lobes vary greatly in their shape, but for the most part they are oval and spear-shaped. The foot-stalks become of a bright purple towards the latter part of summer, and in autumn all the leaves are of a beautiful purple before they fall off.

All the species of sumach abound with an acrid milky juice, which is reckoned poisonous; but this property is most remarkable in the vernix. The most distinct account of it is to be found in Professor Kalm's Travels in North America. "An incision (says he) being made into the tree, a whitish yellow juice which has a nauseous smell, comes out between the bark and the wood.

wood. This tree is not known for its good qualities, but greatly so for the effect of its poison; which though it is noxious to some people, yet does not in the least affect others. And therefore one person can handle the tree as he pleases, cut it, peel off its bark, rub it or the wood upon his hands, smell at it, spread the juice upon the skin, and make more experiments, with no inconvenience to himself: another person, on the contrary, dares not meddle with the tree while its wood is fresh; nor can he venture to touch a hand which has handled it, nor even to expose himself to the smoke of a fire which is made with this wood, without soon feeling its bad effects; for the face, the hands, and frequently the whole body, swells excessively, and is affected with a very acute pain. Sometimes bladders or blisters arise in great plenty, and make the sick person look as if he were infected by a leprosy. In some people the external thin skin, or cuticle, peels off in a few days, as is the case when a person has scalded or burnt any part of his body. Nay, the nature of some persons will not even allow them to approach the place where the tree grows, or to expose themselves to the wind when it carries the effluvia or exhalations of this tree with it, without letting them feel the inconvenience of the swelling which I have just now described. Their eyes are sometimes shut up for one, or two, or more days together, by the swelling. I know two brothers, one of whom could without danger handle this tree in what manner he pleased, whereas the other could not come near it without swelling. A person sometimes does not know that he has touched this poisonous plant, or that he has been near it, before his face and hands show it by their swelling. I have known old people who were more afraid of this tree than of a viper; and I was acquainted with a person who, merely by the noxious exhalations of it, was swelled to such a degree, that he was as stiff as a log of wood, and could only be turned about in sheets.

"I have tried experiments of every kind with the poison-tree on myself. I have spread its juice upon my hands, cut and broke its branches, peeled off its bark, and rubbed my hands with it, smelt at it, carried pieces of it in my bare hands, and repeated all this frequently without feeling the bareful effects so commonly annexed to it; but I, however, once experienced, that the poison of the sumach was not entirely without effect upon me. On a hot day in summer, as I was in some degree of perspiration I cut a branch of the tree, and carried it in my hand for about half an hour together, and smelt it now and then. I felt no effects from it in the evening. But next morning I awoke with a violent itching of my eyelids and the parts thereabouts; and this was so painful, that I could hardly keep my hands from it. It ceased after I had washed my eyes for a while with very cold water. But my eyelids were very stiff all that day. At night the itching returned; and in the morning when I awoke, I felt it as ill as the morning before, and I used the same remedy against it. However, it continued almost for a whole week together; and my eyes were very red, and my eyelids were with difficulty moved during all that time. My pain ceased entirely afterwards. About the same time I had spread the juice of the tree very thick upon my hand. Three days after, it occasioned blisters, which soon went off without affecting me much. I have not experienced any thing more of the effects of the plant, nor had I any desire so to do. However I found that it could not exert its power upon me when I was not perspiring.

"I have never heard that the poison of this sumach has been mortal, but the pain ceases after a few days duration. The natives formerly made their flutes of this tree, because it has a great deal of pith. Some people assured me, that a person suffering from its noisome exhalations, would easily recover by spreading a mixture of the wood burnt to charcoal, and hog's lard, upon the swelling parts. Some asserted, that they had really tried this remedy. In some places this tree is rooted out, on purpose that its poison may not affect the workmen."

The natives are said to distinguish this tree in the dark by its extreme coldness to the touch. The juice of some kinds of sumach, when exposed to the heat of the sun, becomes so thick and clammy, that it is used for bird-lime, and the inspissated juice of the poison-ash is said to be the fine varnish of Japan. A cataplasm made with the fresh juice of the poison-ash, applied to the feet, is said by Hughes, in his Natural History of Barbadoes, to kill the vermin called by the West Indians *chigoes*. Very good vinegar is made from an infusion of the fruit of an American sumach, which from that reason is called the *vinegar-tree*. The resin called *gum copal* is from the rhus copallinum.

RHYME, Rhime, *Ryme* or *Rime*, in *Poetry*, the similar sound or cadence and termination of two words which end two verses, &c. Or rhyme is a similitude of sound between the last syllable or syllables of a verse, succeeding either immediately or at a distance of two or three lines. See Poetry, No. 177, &c.

RHYMER, Thomas the, a poet of Scotland, who lived in the 13th century, and whose real name was Sir Thomas Lermont. The life and writings of this poet are involved in much obscurity; but his fame, both as a prophet and poet, has always stood high among his countrymen. Esslement was the chief family of his name, from which, it is said, he derived his origin; but his family title appears to have been taken from Ercildon, or as it has been corrupted in modern times, from Earlstoun, in the county of Berwick, where the remains of his house are still pointed out, and known by the name of *Rhymer's Tower*. The period of the union with England was the crisis of his fame as an inspired poet; for Robert Birrel informs us, that "at this tyme all the hail commons of Scotland that had red or understanding, wer daylie speiking and exponeing of Thomas Rymer hes prophesie, and of other prophesies quhilk wer prophesied in auld tymes." It is obvious that he distinguished himself by his poetical works, as we learn from the testimony of early writers. He is commemorated by Robert of Brunne, who lived in the beginning of the 14th century, as the author of "Sir Tristrem," a romance lately published by Mr Walter Scott. On a stone still preserved in the front wall of the church of Earlstoun we meet with this inscription.

"Auld Rhymer's race lies in this place."

RHYTHM, in *Music*, the variety in the movement as to the quickness or slowness, length or shortness, of the

the notes. Or it may be defined more generally, the proportion which the parts of the motion have to each other.

RIAL, or RYAL, a Spanish coin. See *MONEY Table*.

RIAL, or *Royal*, is also the name of a piece of gold anciently current among us for 10s.

RIBAND, or RIBBON, in *Heraldry*, the eighth part of a bend. See HERALDRY.

RIBAND, or RIBBON, a narrow sort of silk, chiefly used for head-ornaments, badges of chivalry, &c. See WEAVING.

Ribbons of all sorts are prohibited from being imported.

RIBANDS, (from *rib* and *bend*), in naval architecture, long narrow flexible pieces of timber, nailed upon the outside of the ribs, from the stem to the stern-post, so as to envelope the ship lengthwise, and appear on her side and bottom like the meridians on the surface of the globe. The ribands being judiciously arranged with regard to their height and distance from each other, and forming regular sweeps about the ship's body, will compose a kind of frame, whose interior surface will determine the curve of all the intermediate or filling-timbers which are stationed between the principal ones. As the figure of the ship's bottom approaches to that of a conoid, and the ribands have a limited breadth, it is apparent that they cannot be applied to this convex surface without forming a double curve, which will be partly vertical and partly horizontal; so that the vertical curve will increase by approaching the stem, and still more by drawing near the stern-post. It is also evident, that by deviating from the middle line of the ship's length, as they approach the extreme breadth at the midship-frame, the ribands will also form an horizontal curve. The lowest of these, which is termined upon the stem and stern-post, at the height of the rising line of the floor, and answers to the upper part of the floor-timber upon the midship-frame, is called the *floor riband*. That which coincides with the wing-transom, at the height of the lower deck upon the midship-frame, is termed the *breadth-riband*; all the rest, which are placed between these two, are called *intermediate-ribands*. See SHIP BUILDING.

RIBES, the CURRANT and GOOSEBERRY-BUSH, a genus of plants belonging to the pentandria class, and in the natural method ranking under the 36th order, *Pomaceæ*. See BOTANY *Index*; and for the method of cultivating these fruits, see GARDENING.

RICAUT, or RYCAUT, SIR PAUL, an eminent English traveller, of the time of whose birth we find no account; but in 1661, he was appointed secretary to the earl of Winchelsea, who was sent ambassador extraordinary to the Ottoman Porte. During his continuance in that station, he wrote, "The present State of the Ottoman empire, in three books, containing the maxims of the Turkish policy, their religion, and military discipline" London, folio, 1670. He afterwards resided 11 years as consul at Smyrna, where, at the command of Charles II. he composed "The present State of the Greek and Armenian Churches, *anno Christi* 1678." On his return, Lord Clarendon being appointed lord-lieutenant of Ireland, made him his principal secretary for Leinster and Connaught; King James II. knighted him; and made him one of the privy-council in Ireland, and judge of the court of admiralty; all which he held to the Revolution. He was employed by King William as resident at the Hanse-towns in Lower Saxony, where he continued for ten years; but being worn out with age and infirmities, he obtained leave to return in 1700, and died the same year. Ricaut continued "Knolles's History of the Turks," and "Platina's Lives of the Popes;" besides which, there are some other productions under his name.

RICCIA, a genus of plants of the natural order of algæ, and belonging to the cryptogamia class. See BOTANY *Index*.

RICE. See ORYZA. "Rice *bras* (says Mr Marsden) whilst in the husk, is in Indian called *paddee*, and assumes a different name in each of its other various states. We observe no distinction of this kind in Europe, where our grain retains through all its stages, till it becomes flour, its original name of barley, wheat, or oats. The following, beside many others, are names applied to rice in its different stages of growth and preparation; *paddee*, original name of the seed: *oossay*, grain of last season: *bunnee*, the plants before removed to the sawoors: *bras* or *bray*, rice, the husk of the paddee, being taken off: *charroop*, rice cleaned for boiling: *nassee*, boiled rice: *peerung*, yellow rice: *jambar*, a service of rice, &c.

Among people whose general objects of contemplation are few, those which do of necessity engage their attention, are often more nicely discriminated than the same objects among more enlightened people, whose ideas ranging over the extensive field of art and science, disdain to fix long on obvious and common matters. *Paddee*, in Sumatra and the Malay islands, is distinguished into two sorts; *Laddang* or upland paddee, and *Sawoor* or low-land, which are always kept separate and will not grow reciprocally. Of these the former bears the higher price, being a whiter, heartier, and better flavoured grain, and having the advantage in point of keeping. The latter is much more prolific from the seed, and liable to less risk in the culture, but is of a watery substance produces less increase in boiling, and is subject to a swifter decay. It is, however, in more common use than the former. Beside this general distinction, the paddee of each sort, particularly the Laddang, presents a variety of species, which, as far as my information extends, I shall enumerate, and endeavour to describe. The common kind of dry ground paddee: colour light brown: the size rather large and very little crooked at the extremity. Paddee *undallong*: dry ground: short round grain: grows in whorls or bunches round the stock. Paddee *ebbass*: dry ground: large grain: common. Paddee *gallow*: dry ground: light-coloured: scarce. Paddee *sennee*: dry ground: deep-coloured: small grain: scarce. Paddee *cyoo*: dry ground: light coloured. Paddee *koming*: dry ground: deep yellow: fine rice: crooked and pointed. Paddee *coocoor ballum*: dry ground: much esteemed: light coloured: small, and very much crooked, resembling a dove's nail, from whence its name. Paddee *pesang*: dry ground: outer coat light brown; inner red: longer, smaller, and less crooked than the *coocoor ballum*. Paddee *santong*: the finest sort that is planted in wet ground: small, straight, and light-coloured. In general it may be observed that the larger grained rice is the least esteemed, and the smaller and whiter the most prized

prized. In the Lampoon country they make a distinction of paddee *crawang* and paddee *jerroo*; the former of which is a month earlier in growth than the latter."

The following is the Chinese method of cultivating rice, as it is given by Sir George Staunton:

"Much of the low grounds in the middle and southern provinces of the empire are appropriated to the culture of that grain. It constitutes, in fact, the principal part of the food of all those inhabitants, who are not so indigent as to be forced to subsist on other and cheaper kinds of grain. A great proportion of the surface of the country is well adapted for the production of rice, which from the time the seed is committed to the soil till the plant approaches to maturity, requires to be immersed in a sheet of water. Many and great rivers run through the principal provinces of China, the low grounds bordering on those rivers are annually inundated, by which means is brought upon their surface a rich mud or mucilage that fertilizes the soil, in the same manner as Egypt receives its fecundative quality from the overflowing of the Nile. The periodical rains which fall near the sources of the Yellow and the Kiang rivers, not very far distant from those of the Ganges and the Burumpooter, among the mountains bounding India to the north, and China to the west, often swell those rivers to a prodigious height, though not a drop of rain should have fallen on the plains through which they afterwards flow.

"After the mud has lain some days upon the plains in China, preparations are made for planting them with rice. For this purpose, a small piece of ground is inclosed by a bank of clay; the earth is ploughed up; and an upright harrow, with a row of wooden pins in the lower end, is drawn lightly over it by a buffalo. The grain, which had previously been steeped in dung diluted with animal water, is then sown very thickly upon it. A thin sheet of water is immediately brought over it, either by channels leading to the spot from a source above it, or when below it by means of a chain pump, of which the use is as familiar as that of a hoe to every Chinese husbandman. In a few days the remainder of the ground intended for cultivation, if stiff, is ploughed, the lumps broken by hoes, and the surface levelled by the harrow. As soon as the shoots have attained the height of six or seven inches, they are plucked up by the roots, the tops of the blades cut off, and each root is planted separately, sometimes in small furrows turned with the plough, and sometimes in holes made in rows by a drilling stick for that purpose. The roots are about half a foot asunder. Water is brought over them a second time. For the convenience of irrigation, and to regulate its proportion, the rice fields are subdivided by narrow ridges of clay, into small inclosures. Through a channel, in each ridge, the water is conveyed at will to every subdivision of the field. As the rice approaches to maturity, the water, by evaporation and absorption, disappears entirely; and the crop, when ripe, covers dry ground. The first crop or harvest, in the southern provinces particularly, happens towards the end of May or beginning of June. The instrument for reaping is a small sickle, dentated like a saw, and crooked. Neither carts nor cattle are used to carry the sheaves off from the spot where they were reaped; but they are placed regularly in frames, two of which, suspended at the extremities of a bamboo pole, are carried across the shoulders of a man, to the place intended for disengaging the grain from the stems which had supported it. This operation is performed, not only by a flail, as is customary in Europe, or by cattle treading the corn in the manner of other Orientalists, but sometimes also by striking it against a plank set upon its edge, or beating it against the side of a large tub scolloped for that purpose; the back and sides being much higher than the front, to prevent the grain from being dispersed. After being winnowed, it is carried to the granary.

"To remove the skin or husk of rice, a large strong earthen vessel, or hollow stone, in form somewhat like that which is used elsewhere for filtering water, is fixed firmly in the ground; and the grain, placed in it, is struck with a conical stone fixed to the extremity of a lever, and cleared sometimes indeed imperfectly, from the husk. The stone is worked frequently by a person treading upon the end of the lever. The same object is attained also by passing the grain between two flat stones of a circular form, the upper of which turns round upon the other, but at such a distance from it as not to break the intermediate grain. The operation is performed on a large scale in mills turned by water; the axis of the wheel carrying several arms, which by striking upon the ends of levers, raise them in the same manner as is done by treading on them. Sometimes twenty of these levers are worked at once. The straw from which the grain has been disengaged is cut chiefly into chaff, to serve as provender for the very few cattle employed in the Chinese husbandry,

"The labour of the first crop being finished, the ground is immediately prepared for the reception of fresh seeds. The first operation undertaken is that of pulling up the stubble, collecting it into small heaps, which are burnt, and the ashes scattered upon the field. The former processes are afterwards renewed. The second crop is generally ripe late in October or early in November. The grain is treated as before; but the stubble is no longer burnt. It is turned under with the plough, and left to putrify in the earth. This, with the slime brought upon the ground by inundation, are the only manures usually employed in the culture of rice."

Rice is recommended as the best corrective of *sprit* flour, of which there is a great quantity in Scotland every year, and of course a great deal of unpleasant and unwholesome bread. The writer of the paper alluded to directs ten pounds of flour and one pound of ground rice, with the usual quantity of yeast, to be placed for about two hours before a fire, and then formed into bread in the common way. This addition of rice, besides correcting the bad qualities of the damaged flour, adds, he says, much to its nutriment: and he is undoubtedly right; for the flour of rice, though very nutritious, is so dry, that it is difficult to make bread of it by itself.

Rice-Bird. See ORYZIVORA, } ORNITHOLOGY
Rice-Bunting. See EMBERIZA, } *Index.*

RICHARD I. II. and III. kings of England. See ENGLAND.

RICHARDIA, a genus of plants belonging to the hexandria class, and in the natural method ranking under the 47th order, *Stellatæ*. See BOTANY *Index*.

RICHARDSON, SAMUEL, a celebrated English sentimental

Richardson. sentimental novel-writer, born in 1688, was bred to the business of a printer, which he exercised all his life with eminence. Though he is said to have understood no language but his own, yet he acquired great reputation by his three epistolary novels, entitled Pamela, Clarissa, and Sir Charles Grandison; which show an uncommon knowledge of human nature. His purpose being to promote virtue, his pictures of moral excellence are by much too highly coloured; and he has described his favourite characters such rather as we might wish them to be, than as they are to be found in reality. It is also objected by some, that his writings have not always the good effect intended: for that, instead of improving natural characters, they have fashioned many artificial ones; and have taught delicate and refined ladies and gentlemen to despise every one but their own self-exalted persons. But after all that can be urged of the ill effects of Mr Richardson's novels on weak minds, eager to adopt characters they can only burlesque; a sensible reader will improve more by studying such models of perfection, than of those nearer to the natural standard of human frailty, and where those frailties are artfully exaggerated so as to fix and misemploy the attention on them. A stroke of the palsy carried off Mr Richardson, after a few days illness, upon the 4th of July 1761. He was a man of fine parts, and a lover of virtue; which, for aught we have ever heard to the contrary, he showed in his life and conversation as well as in his writings. Besides the works above-mentioned, he is the author of an Æsop's Fables, a Tour through Britain, 4 vols. and a volume of Familiar Letters upon business and other subjects. He is said from his childhood to have delighted in letter writing; and therefore was the more easily led to throw his romances into that form; which, if it enlivens the history in some respects, yet lengthens it with uninteresting prate, and formalities that mean nothing, and on that account is sometimes found a little tedious and fatiguing.

The most eminent writers of our own country, and even of foriegn parts, have paid their tribute to the transcendent talents of Mr Richardson, whose works have been published in almost every language and country of Europe. They have been greatly admired, notwithstanding every dissimilitude of manners, or every disadvantage of translation. The celebrated M. Diderot, speaking of the means employed to move the passions, in his Essay on Dramatic Poetry, mentions Richardson as a perfect master of that art: "How striking (says he), how pathetic are his descriptions! His personages, though silent, are alive before me; and of those who speak, the actions are still more affecting than the words."—The famous John-James Rousseau, speaking, in his letter to M. d'Alembert, of the novels of Richardson, asserts, "that nothing was ever written equal to, or even approaching them, in any language."—Mr Aaron Hill calls his Pamela a "delightful nursery of virtue."—Dr Warton speaks thus of Clementina; "Of all representations of madness, that of Clementina, in the History of Sir Charles Grandison, is the most deeply interesting. I know not whether even the madness of Lear is wrought up, and expressed, by so many little strokes of nature and passion. It is absolute pedantry to prefer and compare the madness of Orestes in Euripides to this of Clementina."—Dr Johnson, in his Introduction to the 97th number of the Rambler, which was written by Mr Richardson, observes, that the reader was indebted for that day's entertainment to an author, "from whom the age has received greater favours, who has enlarged the knowledge of human nature, and taught the passions to move at the command of virtue;" and, in his life of Rowe, he says, "The character of Lothario seems to have been expanded by Richardson into that of Lovelace; but he has excelled his original in the moral effect of the fiction. Lothario, with gaiety which cannot be hated, and bravery which cannot be despised, retains too much of the spectator's kindness. It was in the power of Richardson alone to teach us at once esteem and detestation; to make virtuous resentment overpower all the benevolence which wit, and elegance, and courage, naturally excite; and to lose at last the hero in the villain."—Dr Young very pertinently observed, that Mr Richardson, with the mere advantages of nature, improved by a very moderate progress in education, struck out at once, and of his own accord, into a new province of writing, in which he succeeded to admiration. And what is more remarkable, that he not only began, but finished the plan on which he set out, leaving no room for any one after him to render it more complete: and that not one of the various writers that have ever since attempted to imitate him, have in any respect equalled, or at all approached near him. This kind of romance is peculiarly his own; and "I consider him (continues the doctor) as a truly great natural genius; as great and supereminent in his way as Shakespeare and Milton were in theirs."

Richardson. *Walpole's Anecdotes of Painting in England.*

Richardson, *Jonathan*, a celebrated painter of heads, was born about the year 1665, and against his inclination was placed by his father in-law apprentice to a scrivener, with whom he lived six years; when obtaining his freedom by the death of his master, he followed the bent of his disposition, and at 20 years old became the disciple of Riley; with whom he lived four years, whose niece he married, and of whose manner he acquired enough to maintain a solid and lasting reputation, even during the lives of Kneller and Dahl; and to remain at the head of the profession when they went off the stage.

There is strength, roundness, and boldness in his colouring; but his men want dignity, and his women grace. The good sense of the nation is characterised in his portraits. You see he lived in an age when neither enthusiasm nor servility were predominant. Yet with a pencil so firm, possessed of a numerous and excellent collection of drawings, full of the theory, and profound in reflections on his art, he drew nothing well below the head, and was void of imagination. His attitudes, draperies, and back-grounds, are totally insipid and unmeaning; so ill did he apply to his own practice the sagacious rules and hints he bestowed on others. Though he wrote with fire and judgment, his paintings owed little to either. No man dived deeper into the inexhaustible stores of Raphael, or was more smitten with the native lustre of Vandyck. Yet though capable of tasting the elevation of the one and the elegance of the other, he could never contrive to see with their eyes, when he was to copy nature himself. One wonders that he could comment their works so well, and imitate them so little.

He quitted business himself some years before his death; but his temperance and virtue contributed to protract his life to a great length in the full enjoyment of his understanding, and in the felicity of domestic friendship. He had had a paralytic stroke that affected his arm, yet never disabled him from his customary walks and exercise. He had been in St James's Park, and died suddenly at his house in Queen's-square on his return home, May 28. 1745, when he had passed the 80th year of his age. He left a son and four daughters, one of whom was married to his disciple Mr Hudson, and another to Mr Grigson an attorney. The taste and learning of the son, and the harmony in which he lived with his father, are visible in the joint works they composed. The father in 1719 published two discourses: 1. An Essay on the whole Art of Criticism as it relates to Painting; 2. An Argument in behalf of the Science of a Connoisseur; bound in one volume octavo. In 1722 came forth An Account of some of the statues, bas-reliefs, drawings, and pictures, in Italy, &c. with Remarks by Mr Richardson, senior and junior. The son made the journey; and from his notes, letters, and observations, they both at his return compiled this valuable work. As the father was a formal man, with a slow, but loud and sonorous voice, and, in truth, with some affectation in his manner; and as there is much singularity in his style and expression, these peculiarities (for they were scarcely foibles) struck superficial readers, and between the laughers and the envious the book was much ridiculed. Yet both this and the former are full of matter, good sense, and instruction: and the very quaintness of some expressions, and their laboured novelty, show the difficulty the author had to convey mere visible ideas through the medium of language. Those works remind one of Cibber's inimitable treatise on the stage: when an author writes on his own profession, feels it profoundly, and is sensible his readers do not, he is not only excusable, but meritorious, for illuminating the subject by new metaphors or bolder figures than ordinary. He is the coxcomb that sneers, not he that instructs, in appropriated diction.

If these authors were censured when conversant within their own circle, it was not to be expected that they would be treated with milder indulgence when they ventured into a sister region. In 1734, they published a very thick octavo, containing explanatory notes and remarks on Milton's Paradise Lost, with the life of the author, and a discourse on the poem. Again were the good sense, the judicious criticisms, and the sentiments that broke forth in this work, forgotten in the singularities that distinguish it. The father having said in apology for being little conversant in classic literature, that he had looked into them through his son, Hogarth, whom a quibble could furnish with wit, drew the father peeping through the nether end of a telescope, with which his son was perforated, at a Virgil aloft on a shelf. Yet how forcibly Richardson entered into the spirit of his author, appears from his comprehensive expression that *Milton was an ancient, born two thousand years after his time.* Richardson, however, was as incapable of reaching the sublime or harmonious in poetry, as he was in painting, though so capable of illustrating both. Some specimens of verse that he has given us here and there in his works, excite no curiosity for more, though he informs us in his Milton, that if painting was his wife, poetry had been his secret concubine. It is remarkable, that another commentator of Milton has made the same confession.

——Sunt et mihi carmina, me quoque dicunt
Vatem pastores——

says Dr Bently. Neither the doctor nor the painter adds *sed non ego credulis illis*, though all their readers are ready to supply it for both. Besides his pictures and commentaries, we have a few etchings by his hand, particularly two or three of Milton, and his own head. The sale of his collections of drawings, in February 1747, lasted 18 days, and produced about L.2060, his pictures about L.700. Hudson his son-in-law bought many of his drawings.

RICHELET, Cæsar Peter, a French writer, born in 1631 at Chemin in Champagne. He was the friend of Patru and Ablancourt; and like them applied himself to the study of the French language with success. He compiled a dictionary of that language, full of new and useful remarks; but exceptionable, as containing many satirical reflections and obscenities. The best edition is that of Lyons, 3 vols. folio, 1728. He also collected a small dictionary of rhymes, and composed some other pieces in the grammatical and critical way. He died in 1698.

RICHES, a word used always in the plural number, means wealth, money, possession, or a splendid sumptuous appearance. When used to express the fortune of private persons, whether patrimonial or acquired, it signifies *opulence;* a term which expresses not the enjoyment, but the possession, of numerous superfluities.—The riches of a state or kingdom expresses the produce of industry, of commerce, of different incorporated bodies, of the internal and external administration of the principal members of which the society is composed, &c.

Our Saviour says, that it is more easy for a camel to go through the eye of a needle, than for a rich man to enter the kingdom of heaven; and we find, in fact, that riches frequently bring along with them a degree of inattention, lukewarmness, and irreligion, such as sufficiently confirms the divine assertion; which is merely a general truth, and which by no means asserts the absolute impossibility of being virtuous and rich at the same time. For as the ancient philosophers wisely taught, riches, considered in themselves, and abstractedly from the bad purposes to which they may be applied, are not necessarily incompatible with virtue and wisdom. They are indeed absolutely indifferent; in good hands they will be useful, and promote the cause of truth, virtue, and humanity; and in bad hands they are the source of much mischief; on the one hand they confer the power of doing much good, and on the other they are equally powerful in doing ill.

To men, however, whose principles of virtue are not sufficiently founded, riches are unquestionably a dangerous and seducing bait; and as the ancients rightly taught, they are to the greatest number of men, in an infinite variety of circumstances, a powerful obstacle to the practice of moral virtues, to the progress of truth, and a weight which prevents them from rising to that degree of knowledge and perfection of which human nature is capable. They multiply without ceasing the occasions of vice, by the facility which they give to satisfy

tisfy a multitude of irregular passions, and to turn at length those who are attached to them from the road of virtue, and from the desire of inquiring after truth.

It is this which Seneca means to express, when he says, "that riches in a vast number of cases have been a great obstacle to philosophy; and that, to enjoy freedom of mind necessary for study, a man must live in poverty, or as if he were poor. Every man (adds he) who wishes to live a pleasant, tranquil, and secure life, must avoid, as much as possible, the deceitfulness of riches, which are a bait with which we allow ourselves to be taken as in a snare, without afterwards having the power to extricate ourselves, being so much the more unhappy, that we believe we possess them, while on the contrary, they tyrannize over us." *Senec. Epist.* 17. and *Epist.* 8.

"The wise man (says the same author in another place) does not love riches to excess, but he would not choose wholly to divest himself of them; he does not receive them into his soul, but into his house; he is careful of them, and employs them for the purpose of opening a wide field for virtue, and of making it appear in all its splendour. Who can doubt that a wise man has not more occasions of displaying the elevation and greatness of his mind when he is possessed of riches than when he labours under indigence, since, in the last condition, he can exercise only one virtue, namely, resignation; whereas, riches give him an opportunity of displaying, in their greatest lustre, the virtues of temperance, liberality, diligence, regularity, and magnificence. There is no occasion, then, to prohibit philosophers from the use of wealth, or to condemn wisdom to poverty. The philosopher may possess the greatest riches, provided he has not employed force or shed blood in acquiring them; provided he has not gained them by unjust or illegal means; in a word, provided the use which he makes of them be as pure as the source from which they were derived, and no person (the envious excepted) regretting his possession; he will not refuse the kindness of fortune, and will enjoy, without shame or pride, the wealth acquired by honest means; he will have more reason to glory, if, after exposing his riches to the view of the whole world, he can desire any person to carry away the reward of treachery or the fruits of oppression. If, after these words, his riches continue undiminished, this man is truly great, and worthy to be rich." *Senec. de Vita Beata*, cap. 21, 22, & 23.

RICHLIEU, John Armand du Plessis de, cardinal of Richlieu and Fronsac, bishop of Lucon, &c. was born at Paris in 1585. He was of excellent parts; and at the age of 22 had the address to obtain a dispensation to enjoy the bishoprie of Lucon in 1607. Returning into France, he applied himself in a particular manner to the function of preaching; and his reputation this way procured him the office of almoner to the queen Mary de Medicis. His abilities in the management of affairs advanced him to be secretary of state in 1616; and the king soon gave him the preference to all his other secretaries. The death of the marquis d'Ancre having produced a revolution in state affairs, Richlieu retired to Avignon; where he employed himself in composing books of controversy and piety. The king having recalled him to court, he was made a cardinal in 1622; and, two years after, first minister of state, and grand master of the navigation. In 1626, the isle of Rhée was preserved by his care, and Rochelle taken, having stopped up the haven by that famous dyke which he ordered to be made there. He accompanied the king to the siege of Cazal, and contributed not a little to the raising of it in 1629. He also obliged the Huguenots to the peace at Alets, which proved the ruin of that party; he took Pamerol, and succoured Cazal besieged by Spinola. In the mean time the nobles found fault with his conduct, and persuaded the king to discard him. The cardinal, for his part, was unmoved with it; and by his reasonings overthrew what was thought to be determined against him; so that, instead of being disgraced, he from that moment became more powerful than ever. He punished all his enemies in the same manner as they would have had him suffer; and the day which produced this event, so glorious to Cardinal Richlieu, was called the *day of dupes*. This able minister had from thenceforwards an ascendancy over the king's mind; and he now resolved to humble the excessive pride of the house of Austria. For that purpose he concluded a treaty with Gustavus Adolphus king of Sweden, for carrying the war into the heart of Germany. He also entered into a league with the duke of Bavaria; secured Lorrain; raised a part of the princes of the empire against the emperor; treated with the Dutch to continue the war against Spain; favoured the Catalans and Portuguese till they shook off the Spanish yoke; and, in short, took so many different measures, that he accomplished his design; and after having carried on the war with success, was thinking of concluding it by a peace, when he died at Paris on the 4th of December 1642, aged 58. He was interred in the Sorbonne, where a magnificent mausoleum is erected to his memory. This great politician made the arts and sciences flourish; formed the botanical garden at Paris, called the *king's garden*; founded the French academy; established the royal printing-house; erected the palace afterwards called *Le Palais Royal*, which he presented to the king; and rebuilt the Sorbonne with a magnificence that appears truly royal. Besides his books of controversy and piety, there go under the name of this minister, A Journal, in 2 vols. 12mo; and a Political Testament, in 12mo; all treating of politics and state affairs. Cardinal Mazarine pursued Richlieu's plan, and completed many of the schemes which he had begun, but left unfinished.

RICHMOND, a town in North America, and capital of the state of Virginia; it is delightfully situated on the north side of James's river at the falls. Vessels of 125 tons come up within a mile of the town, and the boat navigation is continued round the falls by two canals, and to a great distance farther up the river. In 1817 this town contained 13,000 inhabitants, nearly half of whom were negroes. The capital, or building where the legislature meets, is one of the handsomest structures in America. Many of the private houses also are elegant, but rents are very high and provisions dear. The trade of this place is considerable in tobacco and flour; of the former the annual exports were estimated in 1817 at 25,000 hogsheads; and of the latter at 200,000 barrels. W. Long. 77. 40. N. Lat. 37. 28.

RICINUS, or Palma Christi, a genus of plants belonging to the monœcia class, and in the natural method ranking under the 88th order, *Tricoccæ*. See Botany and Materia Medica *Index*.

RICKETS, in *Medicine*. See there, N° 347.

RICOCHET, in *Gunnery*, is when guns, howitzers, or mortars, are loaded with small charges, and elevated from 5 to 12 degrees, so as to fire over the parapet, and the shot or shell rolls along the opposite rampart: it is called *ricochet-firing*, and the batteries are likewise called *ricochet-batteries*. This method of firing was first invented by M. Belidor, and first used at the siege of Ath in 1697. This mode of firing out of mortars was first tried in 1723 at the military school at Strasbourg, and with success. At the battle of Rosbach, in 1757, the king of Prussia had several 6-inch mortars made with trunnions, and mounted on travelling-carriages, which fired obliquely on the enemy's lines, and amongst their horse, loaded with 8 ounces of powder, and at an elevation of one degree 15 minutes, which did great execution; for the shells rolling along the lines, with burning fuses, made the stoutest of the enemy not wait for their bursting.

RICOTIA, a genus of plants, belonging to the tetradynamia class; and in the natural method ranking under the 39th order, *Siliquosæ*. See BOTANY *Index*.

RIDEAU, in *Fortification*, a small elevation of earth, extending itself lengthwise on a plain; serving to cover a camp or give an advantage in a post.

RIDEAU is sometimes also used for a trench, the earth of which is thrown up on its side, to serve as a parapet for covering the men.

RIDGE, in *Agriculture*, a long piece of rising land between two furrows. See AGRICULTURE.

RIDGLING, or RIDGEL, among farriers, &c. the male of any beast that has been but half gelt.

RIDICULE, in matters of literature, is that species of writing which excites contempt with laughter.

The *ridiculous*, however, differs from the *risible*, (see RISIBLE). A risible object produceth an emotion of laughter merely: a ridiculous object is improper as well as risible; and produceth a mixed emotion, which is vented by a laugh of derision or scorn.

Burlesque, though a great engine of ridicule, is not confined to that subject; for it is clearly distinguishable into burlesque that excites laughter merely, and burlesque that provokes derision or ridicule. A grave subject in which there is no impropriety, may be brought down by a certain colouring so as to be risible; which is the case of *Virgil Travestie*, and also the case of the *Secchia Rapita*; the authors laugh first, in order to make their readers laugh. The *Lutrin* is a burlesque poem of the other sort, laying hold of a low and trifling incident, to expose the luxury, indolence, and contentious spirit of a set of monks. Boileau, the author, gives a ridiculous air to the subject, by dressing it in the heroic style, and affecting to consider it as of the utmost dignity and importance. In a composition of this kind, no image professedly ludicrous ought to find quarter, because such images destroy the contrast; and accordingly the author shows always the grave face, and never once betrays a smile.

Though the burlesque that aims at ridicule produces its effects by elevating the style far above the subject, yet it has limits beyond which the elevation ought not to be carried: the poet, consulting the imagination of his readers, ought to confine himself to such images as are lively and readily apprehended: a strained elevation, soaring above an ordinary reach of fancy, makes not a pleasant impression: the reader, fatigued with being always upon the stretch, is soon disgusted; and, if he persevere, becomes thoughtless and indifferent.—Further, a fiction gives no pleasure unless it be painted in colours so lively as to produce some perception of reality; which never can be done effectually where the images are formed with labour or difficulty. For these reasons, we cannot avoid condemning the *Batrachomyomachia*, said to be the composition of Homer: it is beyond the power of imagination to form a clear and lively image of frogs and mice acting with the dignity of the highest of our species; nor can we form a conception of the reality of such an action, in any manner so distinct as to interest our affections even in the slightest degree.

The *Rape of the Lock* is of a character clearly distinguishable from those now mentioned; it is not properly a burlesque performance, but what may rather be termed *an heroi-comical poem*: it treats a gay and familiar subject with pleasantry, and with a moderate degree of dignity: the author puts not on a mask like Boileau, nor professes to make us laugh like Tassoni. The *Rape of the Lock* is a genteel species of writing, less strained than those mentioned; and is pleasant or ludicrous without having ridicule for its chief aim; giving way, however, to ridicule, where it naturally arises from a particular character, such as that of Sir Plume. Addison's Spectator *, upon the exercise of the plan, is extremely gay and ludicrous, resembling in its subject the *Rape of the Lock*.

* No. 102.

There remains to show, by examples, the manner of treating subjects so as to give them a ridiculous appearance.

Il ne dit jamais, je vous donne, mais, je vous prete le bon jour. *Moliere.*

Orleans. I know him to be valiant.

Constable. I was told that by one that knows him better than you.

Orleans. What's he?

Constable. Marry, he told me so himself; and he said, he car'd not who knew it. *Henry V. Shakespeare.*

He never broke any man's head but his own, and that was against a post when he was drunk. *Ibid.*

Millamont. Sententious Mirabel! prithee don't look with that violent and inflexible wise face, like Solomon at the dividing of the child in an old tapestry-hanging. *Way of the World.*

A true critic, in the perusal of a book, is like a dog at a feast, whose thoughts and stomach are wholly set upon what the guests fling away, and consequently is apt to snarl most when there are the fewest bones. *Tale of a Tub.*

In the following instances, the ridicule arises from absurd conceptions in the persons introduced.

Mascarille. Te souvient-il, vicomte, de cette demi-lune, que nous emportames sur les enemis au siege d'Afras?

Jodelet. Que veux-tu dire avec ta demi-lune! c'etoit bien une lune toute entiere.

Molierc, les Precieuses Ridicules, sc. 11.

Slender. I came yonder at Eaton to marry Mrs Anne Page; and she's a great lubberly boy.

Page.

Page. Upon my life then you took the wrong—

Slander. What need you tell me that? I think so when I took a boy for a girl: if I had been married to him, for all he was in woman's apparel, I would not have had him. *Merry Wives of Windsor.*

Valentine. Your blessing, Sir.

Sir Sampson. You've had it already, Sir; I think I sent it you to-day in a bill for four thousand pounds; a great deal of money, brother Foresight.

Foresight. Ay, indeed, Sir Sampson, a great deal of money for a young man; I wonder what he can do with it. *Love for Love,* act ii. sc. 7

Millament. I nauseate walking; 'tis a country diversion; I lothe the country, and every thing that relates to it.

Sir Wilfull. Indeed, hah! look ye, look ye, you do! nay, 'tis like you may——here are choice of pastimes here in town, as plays and the like; that must be confess'd, indeed.

Millament. Ah l'etourdie! I hate the town too.

Sir Wilfull. Dear heart, that's much——hah! that you should hate 'em both! hah! 'tis like you may; there are some cannot relish the town, and others can't away with the country——'tis like you may be one of these, Cousin. *Way of the World,* act iv. sc. 4.

Lord Froth. I assure you, Sir Paul, I laugh at nobody's jests but my own, or a lady's: I assure you, Sir Paul.

Brisk. How? how, my Lord? what, affront my wit? Let me perish, do I never say any thing worthy to be laugh'd at?

Lord Froth. O foy, don't misapprehend me, I don't say so, for I often smile at your conceptions. But there is nothing more unbecoming a man of quality than to laugh; 'tis such a vulgar expression of the passions! every body can laugh. Then especially to laugh at the jest of an inferior person, or when any body else of the same quality does not laugh with one; ridiculous! To be pleas'd with what pleases the crowd! Now, when I laugh I always laugh alone.

Double Dealer, act i. sc. 4.

So sharp-sighted is pride in blemishes, and so willing to be gratified, that it takes up with the very slightest improprieties: such as a blunder by a foreigner in speaking our language, especially if the blunder can bear a sense that reflects on the speaker:

Quickly. The young man is an honest man.

Caius. What shall de honest man do in my closet? dere is no honest man dat shall come in my closet.

Merry Wives of Windsor.

Love speeches are finely ridiculed in the following passage:

Quoth he, My faith as adamantine,
As chains of destiny, I'll maintain;
True as Apollo ever spoke,
Or oracle from heart of oak;
And if you'll give my flame but vent,
Now in close hugger-mugger pent,
And shine upon me but benignly,
With that one and that other pigsney,
The sun and day shall sooner part
Than love, or you, shake off my heart;
The sun, that shall no more dispense
His own, but your bright influence:
I'll carve your name on barks of trees,
With true love notes and flourishes;
That shall infuse eternal spring,
And everlasting flourishing:
Drink every letter on't in stum,
And make it brisk champaigne become.
Where'er you tread, your foot shall set
The primrose and the violet;
All spices, perfumes, and sweet powders
Shall borrow from your breath their odours;
Nature her charter shall renew
And take all lives of things from you;
The world depend upon your eye,
And, when you frown upon it, die.
Only our loves shall still survive,
New worlds and natures to outlive;
And, like to herald moons, remain
All crescents, without change or wane.

Hudibras, part 2. canto 1.

Those who have a talent for ridicule, which is seldom united with a taste for delicate and refined beauties, are quick-sighted in improprieties; and these they eagerly grasp, in order to gratify their favourite propensity. Persons galled are provoked to maintain that ridicule is improper for grave subjects. Subjects really grave are by no means fit for ridicule; but then it is urged against them, that, when called in question whether a certain subject be really grave, ridicule is the only means of determining the controversy. Hence a celebrated question, Whether ridicule be or be not a test of truth.

On one side, it is observed, that the objects of ridicule are falsehood, incongruity, impropriety, or turpitude of certain kinds: but as the object of every excited passion must be examined by reason, before we can determine whether it be proper or improper; so ridicule must apparently at least, establish the truth of the improprieties designed to excite the passion of contempt. Hence it comes in to the aid of argument and reason, when its impressions on the imagination are consistent with the nature of things; but when it strikes the fancy and affections with fictitious images, it becomes the instrument of deceit. But however ridicule may impress the idea of apparent turpitude or falsehood in the imagination, yet still reason remains the supreme judge: and thus ridicule can never be the final test or touchstone of truth and falsehood.

On the other side, it is contended that ridicule is not a subject of reasoning, but of sense or taste: (see and compare the articles Risible and Congruity.) Stating the question, then, in more accurate terms, Whether the sense of ridicule be the proper test for distinguishing ridiculous objects from what are not so? they proceed thus: No person doubts that our sense of beauty is the true test of what is beautiful; and our sense of grandeur, of what is great or sublime. It is more doubtful whether our sense of ridicule be the true test of what is ridiculous? It is not only the true test, but indeed the only test; for this subject comes not, more than beauty or grandeur, under the province of reason. If any subject, by the influence of fashion or custom, have acquired a degree of veneration to which naturally

Ridicule, Riding.

it is not entitled, what are the proper means for wiping off the artificial colouring, and displaying the subject in its true light? A man of true taste sees the subject without the disguise; but if he hesitate, let him apply the test of ridicule, which separates it from its artificial connections, and exposes it naked with all its native improprieties.—But it is urged, that the gravest and most serious matters may be set in a ridiculous light. Hardly so; for where an object is neither risible nor improper, it lies not open in any quarter to an attack from ridicule.

RIDING, in general, signifies the being carried along on any vehicle.

Riding on horseback. See Horsemanship.

Riding, in *Medicine*. During this exercise all the viscera are shaken, and pressed against each other; at the same time the pure air acts with a greater force on the lungs. Weakly persons, or those whose stomachs are infirm, should, however, be cautious of riding before their meals are somewhat digested.

Riding, in naval affairs, is the state of a ship's being retained in a particular station, by means of one or more cables with their anchors, which are for this purpose sunk into the bottom of the sea, &c. in order to prevent the vessel from being driven at the mercy of the wind or current.—A rope is said to *ride*, when one of the turns by which it is wound about the capstern or windlass lies over another, so as to interrupt the operation of heaving.

Riding Athwart, the position of a ship which lies across the direction of the wind and tide, when the former is so strong as to prevent her from falling into the current of the latter.

Riding between the Wind and Tide, the situation of a vessel at anchor, when the wind and tide act upon her in direct opposition, in such a manner as to destroy the effort of each other upon her hull: so that she is in a manner balanced between their reciprocal force, and rides without the least strain on her cables. When a ship does not labour heavily, or feel a great strain when anchored in an open road or bay, she is said to ride easy. On the contrary, when she pitches violently into the sea, so as to strain her cables, masts, or hull, it is called *riding hard*, and the vessel is termed a *bad roader*. A ship is rarely said to *ride* when she is fastened at both the ends, as in a harbour or river; that situation being comprehended in the article Mooring.

Riding, a district visited by an officer.—Yorkshire is divided into three ridings, viz. the east, west, and north ridings. In all indictments in that county, both the town and riding must be expressed.

Observations on Modern Gardening, p. 227, &c.

Decorations of a riding.

Riding, as connected with gardening, and susceptible of embellishment. See Gardening.

A riding though in extent differing so widely from a garden, yet agrees with it in many particulars: for, exclusive of that community of character which results from their being both improvements, and both destined to pleasure, a closer relation arises from the property of a riding, *to extend the idea of a seat*, and appropriate a whole country to the mansion; for which purpose it must be distinguished from common roads, and the marks of distinction must be borrowed from a garden. Those which a farm or a park can supply are few and few; but whenever circumstances belonging to a garden occur, they are immediately received as evidence of the domain. The species of the trees will often be decisive: plantations of firs, whether placed on the sides of the way, or in clumps or woods in the view, denote the neighbourhood of a seat: even limes and horse chesnuts are not indifferent; for they have always been frequent in improvements, and rare in the ordinary scenes of cultivated nature. If the riding be carried through a wood, the shrubs, which for their beauty or their fragrance have been transplanted from the country into gardens, such as the sweet-briar, the viburnum, the euonymus, and the woodbine, should be encouraged in the underwood; and to these may be added several which are still peculiar to shrubberies, but which might easily be transferred to the wildest coverts, and would require no further care.

Where the species are not, the disposition may be particular, and any appearance of design is a mark of improvement. A few trees standing out from a hedgerow, raise it to an elegance above common rusticity: and still more may be done by clumps in a field; they give it the air of a park. A close lane may be decorated with plantations in all the little vacant spaces: and even the groups originally on the spot (whether it be a wood, a field or a lane), if properly selected, and those only left which are elegant, will have an effect: though every beauty of this kind may be found in nature, yet many of them are seldom seen together, and never unmixed. The number and the choice are symptoms of design.

Another symptom is variety. If the appendages of the riding be different in different fields, if in a lane, or a wood, some distinguishing circumstance be provided for every bend: or when, carried over an open exposure, it winds to several points of view; if this be the conduct throughout, the intention is evident, to amuse the length of the way: variety of ground is also a characteristic of a riding, when it seems to have proceeded from choice; and pleasure being the pursuit, the changes of the scene both compensate and account for the circuity.

But a part undistinguished from a common road, succeeding to others more adorned, will by the contrast alone be sometimes agreeable; and there are beauties frequent in the high-way, and almost peculiar to it, which may be very acceptable in a riding: a green lane is always delightful; a passage winding between thickets of brambles and briars, sometimes with, and sometimes without a little spring-wood rising amongst them, or a cut in a continued sweep through the furze of a down or the fern of a heath, is generally pleasant. Nor will the character be absolutely lost in the interruption, it will soon be resumed, and never forgotten; when it has been once strongly impressed, very slight means will preserve the idea.

Simplicity may prevail the whole length of the way when the way is all naturally pleasant, but especially if it be a communication between several spots, which in character are raised above the rest of the country: A fine open grove is unusual, except in a park or a garden; it has an elegance in the disposition which cannot be attributed to accident, and it seems to require a degree of preservation beyond the care of mere husbandry. A neat railing on the edge of a steep which commands a prospect, alone distinguishes that from other points of view. A building is still more strongly

Riding.

strongly characteristic: it may be only ornamental, or it may be accommodated to the reception of company; for though a place to alight at interrupts the range of a riding, yet, as the object of an airing, it may often be acceptable. A small spot which may be kept by the labour of one man, inclosed from the fields, and converted into a shrubbery or any other scene of a garden, will sometimes be a pleasant end to a short excursion from home: nothing so effectually extends the idea of a seat to a distance; and not being constantly visited, it will always retain the charms of novelty and variety.

2 Of a village.

When a riding is carried along a high road, a kind of property may in appearance be claimed even there, by planting on both sides trees equidistant from each other, to give it the air of an approach: regularity intimates the neighbourhood of a mansion. A village therefore seems to be within the domain, if any of the inlets to it are avenues: other formal plantations about it, and still more trivial circumstances, when they are evidently ornamental, sometimes produce and always corroborate such an effect; but even without raising this idea, if the village be remarkable for its beauty, or only for its singularity, a passage through it may be an agreeable incident in a riding.

The same ground which in the fields is no more than rough, often seems to be romantic when it is the site of a village; the buildings and other circumstances mark and aggravate the irregularity. To strengthen this appearance, one cottage may be placed on the edge of a steep, and some winding steps of unhewn stone lead up to the door; another in a hollow, with all its little appurtenances hanging above it. The position of a few trees will sometimes answer the same purpose; a footbridge here and there for a communication between the sides of a narrow dip, will add to the character; and if there be any rills, they may be conducted so as greatly to improve it.

A village which has not these advantages of ground, may however be beautiful; it is distinguished by its elegance, when the larger intervals between the houses are filled with open groves, and little clumps are introduced upon other occasions. The church often is, it generally may be, made a picturesque object. Even the cottages may be neat and sometimes grouped with thickets. If the place be watered by a stream, the crossings may be in a variety of pleasing designs; and if a spring rise, or only a well for common use be sunk by the side of the way, a little covering over it may be contrived which shall at the same time be simple and pretty.

There are few villages which may not easily be rendered agreeable. A small alteration in a house will sometimes occasion a great difference in the appearance. By the help of a few trifling plantations, the objects which have a good effect may be shown to advantage, those which have not may be concealed, and such as are similar be disguised. And any form which offends the eye, whether of ground, of trees, or of buildings, may sometimes be broken by the slightest circumstances, by an advanced paling, or only by a bench. Variety and beauty in such a subject, are rather the effects of attention than expence.

But if the passage through the village cannot be pleasant; if the buildings are all alike, or stand in uncommeaning rows and similar situations; if the place furnishes no opportunities to contrast the forms of dwellings with those of out-houses; to introduce trees and thickets; to interpose fields and meadows; to mix farms with cottages; and to place the several objects in different positions: yet on the outside even of such a village there is certainly room for wood; and by that alone the whole may be grouped into a mass, which shall be agreeable when skirted by a riding; and still more so when seen from a distance. The separate farms in the fields, also, by planting some trees about them, or perhaps only by managing those already on the spot, may be made very interesting objects; or if a new one is to be built, beauty may be consulted in the form of the house, and the disposition of its appurtenances. Sometimes a character not their own, as the semblance of a castle or an abbey, may be given to them; they will thereby acquire a degree of consideration, which they cannot otherwise be entitled to: and objects to improve the views are so important to a riding, that buildings must sometimes be erected for that purpose only: but they should be such as by an actual effect adorn or dignify the scene; not those little slight deceptions which are too well known to succeed, and have no merit if they fail: for though a fallacy sometimes contributes to support a character, or suggests ideas to the imagination, yet in itself it may be no improvement of a scene; and a bit of turret, the tip of a spire, and the other ordinary subjects of these frivolous attempts, are so insignificant as objects, that whether they are real or fictitious is almost a matter of indifference.

3 Of the buildings designed for objects in a riding.

4 Of a garden similar in character to a riding.

The same means by which the prospects from a riding are improved, may be applied to those from a garden; though they are not essential to its character, they are important to its beauty; and wherever they abound, the extent only of the range which commands them, determines whether they shall be seen from a riding or a garden. If they belong to the latter, that assumes in some degree the predominant properties of the former, and the two characters approach very near to each other: but still each has its peculiarities. Progress is a prevailing idea in a riding; and the pleasantness of the way is, therefore, a principal consideration; but particular spots are more attended to in a garden; and to them the communications ought to be subordinate; their direction must be generally accommodated, their beauties sometimes sacrificed, to the situation and the character of the scenes they lead to: an advantageous approach to these must be preferred to an agreeable line for the walk; and the circumstances which might otherwise become it are misplaced, if they anticipate the openings: it should sometimes be contrasted to them; be retired and dark if they are splendid or gay, and simple if they are richly adorned. At other times it may burst unexpectedly out upon them; not on account of the surprise which can have its effect only once; but the impressions are stronger by being sudden; and the contrast is enforced by the quickness of the transition.

In a riding, the scenes are only the amusements of the way, through which it proceeds without stopping: in a garden they are principal; and the subordination of the walk raises their importance. Every art, therefore, should be exerted to make them seem parts of the place.

place. Distant prospects cannot be so; and the alienation does not offend us; we are familiarized to it; the extent forbids every thought of a closer connection; and if a continuation be preserved between them and the points which command them, we are satisfied. But *home-views* suggest other ideas; they appear to be within our reach: they are not only beautiful in prospect, and we can perceive that the spots are delightful; but we wish to examine, to inhabit, and to enjoy them. Every apparent impediment to that gratification is a disappointment; and when the scenes begin beyond the opening, the consequence of the place is lowered; nothing within it engages our notice: it is an exhibition only of beauties, the property of which does not belong to it; and that idea, though indifferent in a riding, which is but a passage, is very disadvantageous to such a residence as a garden. To obviate such an idea, the points of view should be made important; the objects within be appendages to those without; the separations be removed or concealed; and large portions of the garden be annexed to the spots which are contiguous to it. The ideal boundary of the place is then carried beyond the scenes which are thus appropriated to it; and the wide circuit in which they lie, and the different positions in which they may be shown, afford a greater variety than can generally be found in any garden, the scenery of which is confined to the inclosure.

5 Description of Persfield.

Persfield (A) is not a large place; the park contains about 300 acres; and the house stands in the midst of it. On the side of the approach, the inequalities of the ground are gentle, and the plantations pretty; but nothing there is great. On the other side, a beautiful lawn falls precipitately every way into a deep vale which shelves down the middle; the declivities are diversified with clumps and with groves; and a number of large trees straggle along the bottom. This lawn is encompassed with wood; and through the wood are walks, which open beyond it upon those romantic scenes which surround the park, and which are the glory of Persfield. The Wye runs immediately below the wood: the river is of a dirty colour; but the shape of its course is very various, winding first in the form of a horse-shoe, then proceeding in a large sweep to the town of Chepstowe, and afterwards to the Severn. The banks are high hills: in different places steep, bulging out, or hollow on the sides; rounded, flattened, or irregular at top; and covered with wood, or broken by rocks. They are sometimes seen in front; sometimes in perspective; falling back for the passage, or closing behind the bend of the river; appearing to meet, rising above or shooting out beyond one another. The wood which incloses the lawn crowns an extensive range of these hills, which overlook all those on the opposite shore, with the country which appears above or between them; and winding themselves as the river winds, their sides, all rich and beautiful, are alternately exhibited; and the point of view in one spot becomes an object to the next.

In many places the principal feature is a continued rock, in length a quarter of a mile, perpendicular, high, and placed upon a height. To resemble ruins is common to rocks; but no ruin of any single structure was ever equal to this enormous pile; it seems to be the remains of a city; and other smaller heaps scattered about it appear to be fainter traces of the former extent, and strengthen the similitude. It stretches along the brow which terminates the forest of Dean; the face of it is composed of immense blocks of stone, but not rugged: the top is bare and uneven, but not craggy; and from the foot of it, a declivity, covered with thicket, slopes gently towards the Wye, but in one part is abruptly broken off by a ledge of rocks, of a different hue, and in a different direction. From the grotto it seems to rise immediately over a thick wood, which extends down a hill below the point of view, across the valley through which the Wye flows, and up the opposite banks, hides the river, and continues without interruption to the bottom of the rock: from another seat it is seen by itself without even its base; it faces another, with all its appendages about it; and sometimes the sight of it is partially intercepted by trees, beyond which, at a distance, its long line continues on through all the openings between them.

Another capital object is the castle of Chepstowe, a noble ruin of great extent; advanced to the very edge of a perpendicular rock, and so immediately rivetted into it, that from the top of the battlements down to the river seems but one precipice: the same ivy which overspreads the face of the one, twines and clusters among the fragments of the other; many towers, much of the walls, and large remains of the chapel, are standing. Close to it is a most romantic wooden bridge, very ancient, very grotesque, at an extraordinary height above the river, and seeming to abut against the ruins at one end, and some rocky hills at the other. The castle is so near to the alcove at Persfield, that little circumstances in it may be discerned; from other spots more distant even from the lawn, and from a shrubbery on the side of the lawn, it is distinctly visible, and always beautiful, whether it is seen alone, or with the bridge, with the town, with more or with less of the rich meadows which lie along the banks of the Wye, to its junction three miles off with the Severn. A long sweep of that river also, its red cliffs, and the fine rising country in the counties of Somerset and Gloucester, generally terminate the prospect.

Most of the hills about Persfield are full of rocks: some are intermixed with hanging woods, and either advance a little before them, or retire within them, and are backed, or overhung, or separated by trees. In the walk to the cave, a long succession of them is frequently seen in perspective, all of a dark colour, and with wood in the intervals between them. In other parts the rocks are more wild and uncouth; and sometimes they stand on the tops of the highest hills; at other times down as low as the river; they are home-objects in one spot, and appear only in the back-ground of another.

The woods concur with the rocks to render the scenes of Persfield romantic; the place everywhere abounds with them; they cover the tops of the hills; they hang on the steeps; or they fill the depths of the valleys.

(A) The seat of Mr Morris, near Chepstowe, in Monmouthshire.

valleys. In one place they front, in another they rise above, in another they sink below the point of view; they are seen sometimes retiring beyond each other, and darkening as they recede; and sometimes an opening between two is closed by a third at a distance beyond them. A point, called the *Lover's Leap*, commands a continued surface of the thickest foliage, which overspreads a vast hollow immediately underneath. Below the Chinese seat the course of the Wye is in the shape of a horse-shoe: it is on one side inclosed by a semicircular hanging wood; the direct steeps of a table-hill shut it in on the other; and the great rock fills the interval between them: in the midst of this rude scene lies the peninsula formed by the river, a mile at the least in length, and in the highest state of cultivation: near the isthmus the ground rises considerably, and thence descends in a broken surface, till it flattens to the water's edge at the other extremity. The whole is divided into corn fields and pastures; they are separated by hedge-rows, coppices, and thickets; open clumps and single trees stand out in the meadows; and houses and other buildings, which belong to the farms, are scattered amongst them: nature so cultivated, surrounded by nature so wild, compose a most lovely landscape together.

The communications between these several points are generally by close walks; but the covert ends near the Chinese seat; and a path is afterwards conducted through the upper park to a rustic temple, which overlooks on one side some of the romantic views which have been described, and on the other the cultivated hills and valleys of Monmouthshire. To the rude and magnificent scenes of nature now succeeds a pleasant, fertile, and beautiful country, divided into inclosures, not covered with woods, nor broken by rocks and precipices, but only varied by easy swells and gentle declivities. Yet the prospect is not tame; the hills in it are high; and it is bounded by a vast sweep of the Severn, which is here visible for many miles together, and receives in its course the Wye and the Avon.

From the temple a road leads to the Windcliff, an eminence much above the rest, and commanding the whole in one view. The Wye runs at the foot of the hill; the peninsula lies just below; the deep bosom of the semicircular hanging wood is full in sight; over part of it the great rock appears; all its base, all its accompaniments, are seen; the country immediately beyond it is full of lovely hillocks; and the higher grounds in the counties of Somerset and Gloucester rise in the horizon. The Severn seems to be, as it really is, above Chepstowe, three or four miles wide; below the town it spreads almost to a sea; the county of Monmouth is there the hither shore, and between its beautiful hills appear at a great distance the mountains of Brecknock and Glamorganshire. In extent, in variety, and grandeur, few prospects are equal to this. It comprehends all the noble scenes of Persfield, encompassed by some of the finest country in Britain. See GARDENING.

RIDLEY, NICHOLAS, bishop of London, and a martyr to the Reformation, was descended of an ancient family, and born in the beginning of the 16th century, at Wilmontswick in Northumberland. From the grammar-school at Newcastle upon Tyne, he was sent to Pembroke-hall in Cambridge, in the year 1518, where he was supported by his uncle Dr Robert Ridley, fellow of Queen's college. In 1522 he took his first degree in arts; two years after, was elected fellow; and, in 1525, he commenced master of arts. In 1527, having taken orders, he was sent by his uncle, for further improvement, to the Sarbonne at Paris; from thence he went to Louvain, and continued abroad till the year 1529. On his return to Cambridge, he was chosen under-treasurer of the university: and, in 1533, was elected senior proctor. He afterwards proceeded bachelor of divinity, and was chosen chaplain of the university, orator, and *magister glomeriæ*. At this time he was much admired as a preacher and disputant. He lost his kind uncle in 1536; but was soon after patronized by Dr Cranmer, archbishop of Canterbury, who made him his domestic chaplain, and presented him to the vicarage of Herne in East Kent; where, we are told, he preached the doctrine of the Reformation. In 1540, having commenced doctor of divinity, he was made king's chaplain; and in the same year, was elected master of his college in Cambridge. Soon after, Ridley was collated to a prebend in the church of Canterbury; and it was not long before he was accused in the bishop's court, at the instigation of Bishop Gardiner of preaching against the doctrine of the Six Articles. The matter being referred to Cranmer, Ridley was acquitted. In 1545, he was made a prebendary of Westminster abbey; in 1547 was presented, by the fellows of Pembroke-hall, to the living of Soham, to the diocese of Norwich; and the same year was consecrated bishop of Rochester. In 1550 he was translated to the see of London; in which year he was one of the commissioners for examining Bishop Gardiner, and concurred in his deprivation. In the year 1552, our prelate returning from Cambridge, unfortunately for himself, paid a visit to the Princess, afterwards Queen Mary; to whom, prompted by his zeal for reformation, he expressed himself with too much freedom: for she was scarcely seated on the throne when Ridley was doomed a victim to her revenge. With Cranmer and Latimer he was burnt alive at Oxford, on the 16th of October 1555. He wrote, 1. A treatise concerning images in churches. 2. Brief declaration of the Lord's Supper. 3. Certain godly and comfortable conferences between Bishop Ridley and Mr Hugh Latimer, during their imprisonment. 4. A comparison between the comfortable doctrine of the Gospel and the traditions of the Popish religion; and other works.

RIDLEY, *Dr Gloster*, was of the same family with the preceding. He was born at sea, in the year 170[illegible], on board the Gloucester East Indiaman, from which circumstance he obtained his Christian name. He was educated at Winchester school, and afterwards obtained a fellowship at new College, Oxford. He paid his court to the muses at an early period, and laid the foundation of those solid and elegant acquisitions which afterwards distinguished him so eminently as a divine, historian, and poet. During a vacation in 1728, he joined with four friends in composing a tragedy called "The Fruitless Redress," each undertaking an act agreeably to a plan which they had previously concerted. It was offered to Mr Wilkes, but never acted, and is still in manuscript. Dr Ridley in his youth was extremely attached to theatrical performances. The Redress, and another called Jugurtha, were exhibited at Midhurst in Sussex, and the actors were chiefly the gentlemen

tlemen who assisted him in their composition. We are informed that he played Mark Anthony, Jaffier, Horatio, and Moneses, with very great applause, which may be readily inferred from his graceful manner of speaking in the pulpit.

During a great part of his life he had only the small college living of Westow in Norfolk, and that of Poplar in Middlesex, which was the place of his residence. His college added to these some years after, the donative of Romford in Essex, which left him little or no time for what he considered as the necessary studies of his profession. Yet in this situation he remained in the possession of, and satisfied with domestic felicity, and enjoyed the intimate friendship of some who were equally distinguished for worth and learning.

The eight sermons which he preached at Lady Mover's Lecture in 1740 and 1741, were given to the public in 1742. In the year 1756 he was invited to go to Ireland as first chaplain to the duke of Bedford, but declined to accept of it. In the year 1763 he published the life of Bishop Ridley, in 4to, by subscription, from the profits of which he was enabled to purchase L.800 in the public funds. In the concluding part of his life he lost both his sons, who were young men of considerable abilities. The elder, called James, was author of Tales of the Genii, and some other literary performances; and his brother Thomas was sent as a writer to Madras by the East India Company, where he suddenly died of the smallpox. In the year 1765, Dr Ridley published his review of Philips's Life of Cardinal Pole; and as a reward for his labours in this controversy, he was presented, in 1768, by Archbishop Secker with a rich prebend in the cathedral church of Salisbury; the only reward he received from the great during a long and useful life. He was at last worn out with infirmities, and died in 1774, leaving behind him a wife and four daughters. By his elegant epitaph, written by Bishop Lowth, we are informed that the university of Oxford, for his merits, conferred upon him the degree of D. D. the highest literary honour which that learned body has to bestow.

RIENZI, Nicholas Gabrini de, one of the most singular characters of the 14th century, was born at Rome, but it is not certainly known in what year. His father, as some affirm, was a vintner, but a miller according to others, and his mother was a laundress, yet they found means to give their son a liberal education; and to a fine natural understanding he added uncommon application. He was well acquainted with the laws and customs of nations; and had a vast memory, which enabled him to retain much of Cicero, Valerius Maximus, Livy, the two Senecas, and in particular Cæsar's Commentaries, which he constantly perused. This extensive erudition proved the foundation of his future rise. He acquired the reputation of a great antiquarian, from the time he spent among the inscriptions which are to be found at Rome, and these inspired him with exalted ideas of the liberty, the grandeur, and justice of the old Romans. He even persuaded himself, and found means to persuade others, that he should one day be the restorer of the Roman republic. The credulity of the people was powerfully encouraged and strengthened by his advantageous stature, by the attractions of his countenance, and by that air of consequence which he could assume at pleasure. The joint energy of all these prepossessing qualities made a deep and almost indelible impression on the minds of his hearers.

Nor was his fame merely confined to the vulgar, for he even ingratiated himself into the good opinion of many distinguished personages belonging to the administration. The Romans chose him one of their deputies to Pope Clement VI. then at Avignon, the purport of whose mission was to persuade his holiness, that his absence from the capital was inimical to its interest. His commanding eloquence and gay conversation charmed the court of Avignon, from which Rienza was encouraged to tell the Pope, that the great men of Rome were public thieves, robbers, adulterers, and profligates, by whose example the most horrid crimes were sanctioned. This ill-timed freedom of speech made Cardinal Colonna his enemy, though the friend of genuine merit, because he thought that some of his family were abused by such a thundering philippic, in consequence of which Rienzi was disgraced, and fell into extreme misery, vexation, and sickness, which, by being united with indigence, brought him to an hospital. But as the cardinal was compassionate, the offender was again brought before the Pope, who being informed that Rienza was a good man, and the strenuous advocate of equity and justice, gave him higher proofs of his esteem and confidence than before. He was appointed apostolic notary, and sent back to Rome loaded with the effects of papal munificence.

The functions of this office he executed in such a manner as to become the idol of the people, whose affections he laboured to secure by exclaiming against the vices of the great, rendering them as odious as possible, for which imprudent liberties he was dismissed from office. In this situation of his affairs he endeavoured to kindle and keep alive in the minds of the people a zeal for their ancient liberties, displaying emblems of the ancient grandeur and present decline of the city, accompanied with harangues and many expressive predictions. Such an intrepid, and at the same time extraordinary conduct, made some regard him as a lunatic, while others hailed him as their guardian and deliverer. When he supposed that the numbers attached to his interest were sufficiently strong, he called them together, and gave them a dismal picture of the state of the city, overrun with debaucheries, which their governors had no capacity either to correct or amend. He declared that the Pope could, even at the rate of fourpence, raise 100,000 florins by firing, an equal sum by salt, and as much more by the customs and other duties, insinuating that he did not seize on the revenues without the consent of his Holiness.

This artful lie so powerfully animated his hearers, that they signified their determination to secure these treasures for whatever purposes might be most convenient, and that to his will they would cheerfully devote themselves. This resolution he caused them confirm by an oath, and it is said that he had the address to procure from the Pope's vicar the sanction of his authority. On the 20th of May he pretended that he did nothing but in consequence of the particular inspiration of the Holy Ghost, and about 9 o'clock he came out of the church with his head bare, attended by the Pope's vicar, and about 100 men in armour. Having proceeded directly to the capital, and declared from the rostrum, with even more than his wonted boldness and energy, that the hour of

of their emancipation was at length arrived; that he himself was to be their glorious deliverer, and that he poured contempt on the dangers to which he might be exposed in the service of his Holiness, and for the happy deliverance of the people. The laws of the "good establishment" were next ordered to be read; and he rested assured that the Romans would resolve to observe these laws, in consequence of which he pledged himself to re-establish them in a short time in their ancient grandeur and magnificence.

Plenty and security were the blessings promised by the good establishment, and the humbling of the nobles, who were regarded as common oppressors. Such ideas filled the people with transport, and they became zealously attached to the fanaticism of Rienzi. The multitude declared him to be sovereign of Rome, to whom they granted the power of life and death, of rewards and punishments, of making and repealing laws, of treating with foreign powers, and a full and absolute authority over all the Roman territories.

Having thus arrived at the zenith of his ambition, he concealed his artifice as much as possible, and pretended to be extremely averse to accept of their proffered honours, unless they would make choice of the Pope's vicar to be his copartner, and find means to procure the sanction of the Pope himself. His wish to have the vicar (bishop of Orvieto) as his copartner was readily complied with, while all the honours were paid to Rienzi, the duped bishop enjoying but a mere nominal authority. Rienzi was seated in his triumphal chariot, and the people were dismissed, overwhelmed with joy and expectation. This strange election was ratified by the Pope, although it was impossible that he could inwardly approve of it; and to procure a title exclusive of the prerogative of his Holiness, was the next object of Rienzi's ambition. He sought, therefore, and readily obtained the title of magistrate, which was conferred on him and his coadjutor, with the additional epithet of *deliverers of their country*. The conduct of Rienzi immediately subsequent to this elevation justly procured him esteem and respect, as well from the Romans as from neighbouring states: but as his beginning was mean and obscure, he soon became intoxicated with his sudden, his extraordinary elevation, and the incensed nobles having conspired against him, successfully drove him from an authority which he had the prudence or address to retain not more than six months. At this critical period his life was only preserved by flight, and disguises to which he had afterwards recourse.

Having made an ineffectual effort at Rome to regain his authority, he went afterwards to Prague, to Charles king of the Romans, in consequence of which rash step he was thrown into prison at Avignon, where he continued for three years. When he procured his enlargement, Pope Innocent IV. who succeeded Clement, well knew that many of the Romans were still attached to Rienzi, and therefore he made choice of him as a fit object for assisting him in his design of humbling the other petty tyrants of Italy. In short, he was set at liberty, and appointed governor and senator of Rome. It was hoped that his chastisement would teach him more moderation in future, and that gratitude would induce him to preserve an inviolable attachment to the holy see during the remainder of his life. He met with considerable opposition in assuming his new authority, but cunning and resolution enabled him to overcome it. But gratifying his passions, which were violent in the extreme, and disgracing his office and character by acts of cruelty; he was murdered on the 8th of October 1354.

Thus died Nicolas Rienzi, one of the most extraordinary characters of the age in which he lived; who, having formed a conspiracy big with extravagance, and carried it into execution nearly in the face of the whole world, with such remarkable success as to become sovereign of Rome; having blessed the Romans with plenty, liberty, and justice; having afforded protection to some princes, and proved a terror to others; having become the arbiter of crowned heads, established the ancient majesty and power of the Roman republic, and filled all Europe with his fame; finally, having procured their sanction whose authority he had usurped in opposition to their interests; he fell at last a sacrifice to the nobles whose ruin he had vowed, and to those vast projects, the execution of which was only prevented by his death.

RIFLE, in *Gunnery*. See GUNNERY, No. 36, *et. seq.*

RIGA, a large, strong, populous, and rich town of the Russian empire, and capital of Livonia. It is a large trading place, and has a very considerable fortress; the trade is chiefly in corn, skins, leather, and naval stores. It was taken by the Russians in 1710, after they had blocked it up a long while, during which the inhabitants were afflicted with the plague. The castle is square, and defended by four towers and six bastions; besides which, it has a fine arsenal. The Protestants have still a handsome college here. The population is computed at 27,000. It is seated on a large plain on the river Dwina. E. Long. 24. 25. N. Lat. 57. 0.

RIGADOON, a gay and brisk dance, borrowed originally from Provence in France, and performed in figure by a man and woman.

RIGGING *of a Ship*, a general name given to all the ropes employed to support the masts, and to extend or reduce the sails, or arrange them to the disposition of the wind. The former, which are used to sustain the masts, remain usually in a fixed position, and are called *standing rigging*; such are the shrouds, stays, and backstays. The latter, whose office is to manage the sails, by communicating with various blocks or pulleys, situated in different parts of the masts, yards, shrouds, &c. are comprehended in the general term of *running rigging*; such are the braces, sheets, haliards, clue-lines, brails, &c.

In rigging a mast, the first thing usually fixed upon its head is a circular wreath or rope, called the *gromet*, or *collar*, which is firmly beat down upon the top of the hounds. The intent of this is to prevent the shrouds from being fretted or worn by the trestle-trees, or shoulders of the mast; after this are laid on the two pendants, from whose lower ends the main or fore-tackles are suspended; and next, the shrouds of the starboard and larboard side, in pairs, alternately. The whole is covered by the stays, which are the largest ropes of the rigging.—When a yard is to be rigged, a gromet is also driven first on each of its extremities; next to this are fitted on the horses, the braces, and lastly the lifts or top-sail sheet-blocks.

The principal objects to be considered in rigging a ship, appear to be strength, convenience, and simplicity; or, the properties of affording sufficient security to the masts, yards, and sails; or arranging the whole machinery

Rigging, Right.

nery in the most advantageous manner, to sustain the masts, and facilitate the management of the sails: and of avoiding perplexity, and rejecting whatever is superfluous or unnecessary. The perfection of this art, then, consists in retaining all those qualities, and in preserving a judicious medium between them. See SHIP-BUILDING.

RIGHT, in *Geometry*, signifies the same with straight; thus, a straight line is called a *right* one.

RIGHT is a title conferred, 1. Together with *Reverend*, upon all bishops. 2. Together with *Honourable*, upon earls, viscounts, and barons. 3. By courtesy, together with *Honourable*, upon the sons of dukes, marquises, and the eldest sons of earls. 4. Together with *Honourable*, to the speaker of the house of commons; but to no other commoner excepting those who are members of his majesty's most honourable privy-council; and the three lord mayors of London, York, and Dublin, and the lord provost of Edinburgh, during their office. See HONOURABLE and PROVOST.

Hereditary RIGHT. See HEREDITARY.

1 The term *right* explained.

RIGHT is a word which, in the propriety of the English language, is used sometimes as an adjective and sometimes as a substantive. As an adjective it is nearly of the same import with *fit*, *suitable*, *becoming*, *proper*, and whilst it expresses a quality, it indicates a relation *. Thus, when we say that an action is *right*, we must not only know the nature of the action, but if we speak intelligibly, must also perceive its relation to the end for which it was performed; for an action may be *right* with one end in view which would be *wrong* with another. The conduct of that general would be *right*, who, to save an army that could not be otherwise saved, should place a small detachment in a station where he knew they would all be inevitably cut off; but his conduct would be very *wrong* were he to throw away the life of a single individual for any purpose, however important, which he knew how to accomplish without such a sacrifice

* See *Rectitude*.

Many philosophers have talked of actions being *right* and *wrong* in the abstract without regard to their natural consequences; and converting the word into a substantive, they have fancied an eternal rule of *right*, by which the morality of human conduct is in every particular case to be tried. But in these phrases we can discover no meaning. Whatever is *right* must be so on *some account or other*; and whatever is *fit*, must be fit for some *purpose*. When he who rests the foundation of virtue on the *moral sense*, speaks of an action being *right*, he must mean that it is such as, through the medium of that sense, will excite complacency in the mind of the agent, and gain to him the general approbation of mankind. When he who rests moral obligation on the will of God, speaks of some actions as *right* and of others as *wrong*, he must mean that the former are agreeable to the divine will, however made known to men, and the latter disagreeable to it; and the man who deduces the laws of virtue from what he calls the *fitness of things*, must have some *end in view*, for which things are fit, and denominate actions *right* or *wrong* as they tend to promote or counteract that end.

But the word *right* used as a substantive, has in common as well as in philosophical language a signification which at first view appears to be very different from this. It denotes a *just claim* or an *honest possession*. Thus we say, a father has a *right* to reverence from his children, a husband to the love and fidelity of his wife, and a king to the allegiance of his subjects. But if we trace these *rights* to their source, we shall find that they are all laws of moral obligation, and that they are called *rights* only because it is agreeable to the will of God, to the instinctive dictates of the moral sense, or to the fitness of things, if such a phrase has any meaning, that children reverence their parents, that wives love their husbands, and that subjects pay allegiance to their sovereign. This will be apparent to any man who shall put to himself such questions as these: "*Why* have parents a *right* to reverence from their children, husbands to the love of their wives, and sovereigns to the allegiance of their subjects?" As these questions contain in them nothing absurd, it is obvious that they are each capable of a precise answer; but it is impossible to give to any of them an answer which shall have any meaning, and not imply that *right* and *obligation* are reciprocal, or, in other words, that wherever there is a *right* in *one person* there is a corresponding *obligation* upon *others*. Thus to the question, "Why have parents a right to reverence from their children?" it may be answered, "because, under God, they were the authors of their children's being, and protected them from danger, and furnished them with necessaries, when they were in a state so helpless that they could do nothing for themselves." This answer conveys no other meaning than that there is an obligation upon children, in return for benefits received, to reverence their parents. But what is the source of this obligation? It can only be the will of God, the moral sense, or the fitness of things.

Right.

This view of the nature of right will enable us to form a proper judgment of the assertion of a late writer, "that man has no rights." The arguments by which this apparent paradox is maintained, are not merely ingenious and plausible; they are absolutely conclusive. But then our philosopher, who never chooses to travel in the beaten track, takes the word *right* in a sense very different from that in which it has been used by all other men, and considers it as equivalent to *discretionary power*. "By the word *right* (says he) is understood a full and complete power of either doing a thing or omitting it, without the person's becoming liable to animadversion or censure from another; that is, in other words, without his incurring any degree of turpitude or guilt." In this sense of the word he affirms, and affirms truly, that a man has no rights, no discretionary power whatever, except in things of such total indifference as, whether "he shall sit on the right or on the left side of his fire, or dine on beef to-day or to-morrow."

Goodwin's Political Justice.

2 Rights of man.

A proposition so evidently true as this stood not in need of argument to support it; but as his arguments are clearly expressed, and afford a complete confutation of some popular errors sanctioned by the respectable phrase *rights of man*, we shall give our readers an opportunity of studying them in his own words.

"Political society is founded on the principles of morality and justice. It is impossible for intellectual beings to be brought into coalition and intercourse without a certain mode of conduct, adapted to their nature and connection, immediately becoming a duty incumbent on the parties concerned. Men would never have associated if they had not imagined that, in consequence of that association, they would mutually conduce

Right.

conduce to the advantage and happiness of each other. This is the real purpose, the genuine basis, of their intercourse; and, as far as this purpose is answered, so far does society answer the end of its institution. There is only one postulate more that is necessary to bring us to a conclusive mode of reasoning upon this subject. Whatever is meant by the term *right*, there can neither be opposite rights, nor rights and duties hostile to each other. The rights of one man cannot clash with or be destructive of the rights of another: for this, instead of rendering the subject an important branch of truth and morality, as the advocates of the rights of man certainly understood it to be, would be to reduce it to a heap of unintelligible jargon and inconsistency. If one man have a right to be free, another man cannot have a right to make him a slave; if one man have a right to inflict chastisement upon me, I cannot have a right to withdraw myself from chastisement; if my neighbour have a right to a sum of money in my possession, I cannot have a right to retain it in my pocket. It cannot be less incontrovertible, that I have no right to omit what my duty prescribes. From hence it inevitably follows that men have no rights.

"It is commonly said, 'that a man has a right to the disposal of his fortune, a right to the employment of his time, a right to the uncontrolled choice of his profession or pursuits.' But this can never be consistently affirmed till it can be shown that he has no duties, prescribing and limiting his mode of proceeding in all these respects.

"In reality, nothing can appear more wonderful to a careful inquirer, than that two ideas so incompatible as *man* and *rights* should ever have been associated together. Certain it is, that one of them must be utterly exclusive and annihilatory of the other. Before we ascribe rights to man, we must conceive of him as a being endowed with intellect, and capable of discerning the differences and tendencies of things. But a being endowed with intellect, and capable of discerning the differences and tendencies of things, instantly becomes a moral being, and has duties incumbent on him to discharge: and duties and rights, as has already been shown, are absolutely exclusive of each other.

"It has been affirmed by the zealous advocates of liberty, 'that princes and magistrates have no rights;' and no position can be more incontrovertible. There is no situation of their lives that has not its correspondent duties. There is no power intrusted to them that they are not bound to exercise exclusively for the public good. It is strange, that persons adopting this principle did not go a step farther, and perceive that the same restrictions were applicable to subjects and citizens."

3 Real and

This reasoning is unanswerable; but it militates not against the *rights of man* in the usual acceptation of the words, which are never employed to denote discretionary power, but a just claim on the one hand, implying a corresponding obligation on the other. Whether the phrase be absolutely proper is not worth the debating: it is authorised by custom—the *jus et norma loquendi*—and is universally understood except by such as the dæmons of faction, in the form of paradoxical writers on political justice, have been able to mislead by sophistical reasonings.

4 Various.

Rights, in the common acceptation of the word, are of various kinds: they are *natural* or *adventitious*, *alienable* or *unalienable*, *perfect* or *imperfect*, *particular* or *general*. See the article LIBERTY.

Rights.

5 Natural rights.

Natural rights are those which a man has to his life, limbs, and liberty; to the produce of his personal labour; to the use, in common with others, of air, light, and water, &c. That every man has a natural right or just claim to these things, is evident from their being absolutely necessary to enable him to answer that purpose, whatever it may be, for which he was made a living and a rational being. This shows undeniably, that the Author of his nature designed that he should have the use of them, and that the man who should wantonly deprive him of any one of them, would be guilty of a breach of the divine law, as well as act inconsistently with the fitness of things in every sense in which that phrase can possibly be understood.

6 Adventitious rights.

Adventitious rights are those which a king has over his subjects, a general over his soldiers, a husband to the person and affections of his wife, and which every man has to the greater part of his property. That the rights of the king and the general are adventitious, is universally admitted. The rights of property have been considered elsewhere (see PROPERTY); and though the human constitution shows sufficiently that men and women have a natural right to the use of each other, yet it is evident that the *exclusive* right of any one man to any one woman, and *vice versa*, must be an adventitious right: but the important question is, How are adventitious rights acquired?

7 How acquired.

In answer to this question, the moralist who deduces the laws of virtue from the will of God, observes, that as God appears from his works to be a benevolent Being, who wills the happiness of all his creatures (see METAPHYSICS, N° 312), he must of course will every thing which naturally tends to promote that happiness. But the existence of civil society evidently contributes in a great degree to promote the sum of human happiness (see SOCIETY); and therefore whatever is necessary for the support of civil society in general, or for the conduct of particular societies already established, must be agreeable to the will of God: But the allegiance of subjects to their sovereign, the obedience of soldiers to their leader, the protection of private property, and the fulfilling of contracts, are all absolutely necessary to the support of society: and hence the rights of kings, generals, husbands and wives, &c. though adventitious, and immediately derived from human appointments, are not less sacred than natural rights, since they may all be ultimately traced to the same source. The same conclusion may easily be drawn by the philosopher, who rests moral obligation on the fitness of things or on a moral sense; only it must in each of these cases partake of the instability of its foundation.

8 Objections to some of these rights.

To the sacredness of the rights of marriage, an author already quoted has lately urged some declamatory objections. "It is absurd (says he) to expect, that the inclinations and wishes of two human beings should coincide through any long period of time. To oblige them to act and to live together, is to subject them to some inevitable portion of thwarting, bickering, and unhappiness. This cannot be otherwise, so long as man has failed to reach the standard of absolute perfection. The supposition that I must have a companion for

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for life, is the result of a complication of vices. It is the dictate of cowardice, and not of fortitude. It flows from the desire of being loved and esteemed for something that is not desert.

"But the evil of marriage, as it is practised in European countries, lies deeper than this. The habit is, for a thoughtless and romantic youth of each sex to come together, to see each other for a few times, and under circumstances full of delusion, and then to vow to each other eternal attachment. What is the consequence of this? In almost every instance they find themselves deceived. They are reduced to make the best of an irretrievable mistake. They are presented with the strongest imaginable temptation to become the dupes of falsehood. They are led to conceive it their wisest policy to shut their eyes upon realities; happy if by any perversion of intellect they can persuade themselves that they were right in their first crude opinion of their companion.

"So long as two human beings are forbidden by positive institution to follow the dictates of their own mind, prejudice is alive and vigorous. So long as I seek to engross one woman to myself, and to prohibit my neighbour from proving his superior desert and reaping the fruits of it, I am guilty of the most odious of all monopolies. Over this imaginary prize men watch with perpetual jealousy; and one man will find his desires and his capacity to circumvent as much excited, as the other is excited to traverse his projects and frustrate his hopes. As long as this state of society continues, philanthropy will be crossed and checked in a thousand ways, and the still augmenting stream of abuse will continue to flow.

"The abolition of marriage will be attended with no evils. The intercourse of the sexes will fall under the same system as any other species of friendship. Exclusively of all groundless and obstinate attachments, it will be impossible for me to live in the world without finding one man of a worth superior to that of any other whom I have an opportunity of observing. To this man I shall feel a kindness in exact proportion to my apprehension of his worth. The case will be precisely the same with respect to the female sex; I shall assiduously cultivate the intercourse of that woman whose accomplishments shall strike me in the most powerful manner. 'But it may happen that other men will feel for her the same preference that I do.' This will create no difficulty. We may all enjoy her conversation; and we shall all be wise enough to consider the sensual intercourse as a very trivial object. This, like every other affair in which two persons are concerned, must be regulated in each successive instance by the unforced consent of either party. It is a mark of the extreme depravity of our present habits, that we are inclined to suppose the sensual intercourse anywise material to the advantages arising from the purest affection. Reasonable men now eat and drink, not from the love of pleasure, but because eating and drinking are essential to our healthful existence. Reasonable men then will propagate their species, not because a certain sensible pleasure is annexed to this action, but because it is right the species should be propagated; and the manner in which they exercise this function will be regulated by the dictates of reason and duty."

It is right then, according to this political innovator, that the species should be propagated, and reasonable men in his Utopian commonwealth would be incited by reason and duty to propagate them: but the way to fulfil this duty, experience, which is seldom at one with speculative reformation, has already demonstrated, not to consist in the promiscuous intercourse of several men with one woman, but in the fidelity of individuals of the two sexes to each other. Common prostitutes among us seldom prove with child; and the society of *Arreoys* in Otaheite, who have completely divested themselves of what our author calls *prejudice*, and are by no means guilty of his *most odious of all monopolies*, are for the most part childless (see OTAHEITE). He seems to think that a state of equal property would necessarily destroy our relish for luxury, decrease our inordinate appetites of every kind, and lead us universally to prefer the pleasures of intellect to the pleasures of sense. But here again experience is against him. The *Arreoys*, who have a property in their women perfectly equal, are the most luxurious and sensual wretches on the face of the earth; sensual indeed to a degree of which the most libidinous European can hardly form a conception.

By admitting it to be a duty to propagate the species, our author must necessarily grant that every thing is right which is requisite to the fulfilling of that duty, and the contrary wrong. If so, promiscuous concubinage is wrong, since we have seen, that by a law of nature it is incompatible with the duty; whence it follows on his own principles, that the sexual union by pairs must be right. The only question therefore to be decided between him and his opponents is, "Whether should that union be temporary or permanent?" And we think the following observations by Mr Paley sufficient to decide it to the conviction of every person not blinded by the rage of innovation.

"A lawgiver, whose counsels were directed by views of general utility, and obstructed by no local impediments, would make the marriage contract indissoluble during the joint lives of the parties, for the sake of the following advantages: Such an union tends to preserve peace and concord between married persons, by perpetuating their common interest, and by inducing a necessity of mutual compliance. An earlier termination of it would produce a separate interest. The wife would naturally look forward to the dissolution of the partnership, and endeavour to draw to herself a fund against the time when she was no longer to have access to the same resources. This would beget peculation on one side, and mistrust on the other; evils which at present very little disturb the confidence of married life. The second effect of making the union determinable only by death, is not less beneficial. It necessarily happens, that adverse tempers, habits, and tastes, oftentimes meet in marriage. In which case, each party must take pains to give up what offends, and practise what may gratify, the other. A man and woman in love with each other do this insensibly; but love is neither general nor durable; and where that is wanting, no lessons of duty, no delicacy of sentiment, will go half so far with the generality of mankind and womankind as this one intelligible reflection, that they must each make the best of their bargain; and that seeing they must either both be miserable or both share in the same happiness, neither can find their own comfort but in promoting the pleasure of the other. These compliances, though at first extorted by necessity, become in time easy and mutual

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mutual; and though less endearing than assiduities which take their rise from affection, generally procure to the married pair a repose and satisfaction sufficient for their happiness."

So differently from our author does this judicious writer reason concerning the effects of a permanent union on the tempers of the married pair. Instead of subjecting them to some inevitable portion of thwarting, bickering, and unhappiness, it lays them, in his opinion, under the necessity of curbing their unruly passions, and acquiring habits of gentleness, forbearance, and peace. To this we may add, that both believing the children propagated during their marriage to be their own, (a belief unattainable by the father in a state of promiscuous concubinage), they come by a natural process of the human passions (see PASSION) to love each other through the medium of their offspring. But if it be the duty of man to acquire a spirit first pure, then peaceable, gentle, and easy to be intreated, it must be agreeable to the will of God, and a branch of the fitness of things, that the sexual union last during the joint lives of the parties; and therefore the exclusive right of marriage, though adventitious, must be equally sacred with those which are natural.

10 Rights alienable and unalienable.

But to return from this digression, into which the importance of the subject led us, *rights*, besides being natural or adventitious, are likewise *alienable* or *unalienable*. Every man, when he becomes the member of a civil community, alienates a part of his natural rights. In a state of nature, no man has a superior on earth, and each has a right to defend his life, liberty, and property by all the means which nature has put in his power. In civil society, however, these rights are all transferred to the laws and the magistrate, except in cases of such extreme urgency as leave not time for legal interposition. This single consideration is sufficient to show, that the right to civil liberty is alienable; though, in the vehemence of men's zeal for it, and in the language of some political remonstrances, it has often been pronounced to be an unalienable right. "The true reason (says Mr Paley) why mankind hold in detestation the memory of those who have sold their liberty to a tyrant is, that, together with their own, they sold commonly or endangered the liberty of others; of which they had certainly no right to dispose." The rights of a prince over his people, and of a husband over his wife, are generally and naturally unalienable.

11 Perfect and imperfect.

Another division of rights is into those which are perfect and those which are imperfect. Perfect rights are such as may be precisely ascertained and asserted by force or in civil society by the course of law. To imperfect rights neither force nor law is applicable. A man's rights to his life, person, and property, are all perfect: for if any of these be attacked, he may repel the attack by instant violence, punish the aggressor by the course of law, or compel the author of the injury to make restitution or satisfaction. A woman's right to her honour is likewise perfect: for if she cannot otherwise escape, she may kill the ravisher. Every poor man has undoubted right to relief from the rich: but his right is imperfect, for if the relief be not voluntarily given, he cannot compel it either by law or by violence. There is no duty upon which the Christian religion puts a greater value than alms-giving; and every preacher of the gospel has an undoubted right to inculcate the practice of it upon his audience: but even this right is imperfect, for he cannot refuse the communion to a man merely on account of his illiberality to the poor, as he can to another for the neglect of any duty comprehended under the term justice. In elections or appointments to offices, where the qualifications are prescribed, the best qualified candidate has unquestionably a right to success; yet if he be rejected, he can neither seize the office by force, nor obtain redress at law. His right, therefore, is imperfect.

Here a question naturally offers itself to our consideration: "How comes a person to have a right to a thing, and yet have no right to use the means necessary to obtain it?" The answer is, That in such cases the object or the circumstances of the right are so indeterminate, that the permission of force, even where the right is real and certain, would lead to force in other cases where there exists no right at all. Thus, though the poor man has a right to relief, who shall ascertain the mode, season, and quantum of it, or the person by whom it shall be administered? These things must be ascertained before the right to relief can be enforced by law; but to allow them to be ascertained by the poor themselves, would be to expose property to endless claims. In like manner, the comparative qualifications of the candidate must be ascertained, before he can enforce his right to the office: but to allow him to ascertain his qualifications himself, would be to make him judge in his own cause between himself and his neighbour.

12 Imperfect rights equally sacred with those which are perfect.

Wherever the right is imperfect on one side, the corresponding obligation on the other must be imperfect likewise. The violation of it, however, is often not less criminal in a moral and religious view than of a perfect obligation. It is well observed by Mr Paley, that greater guilt is incurred by disappointing a worthy candidate of a place upon which perhaps his livelihood depends, and in which he could eminently serve the public, than by filching a book out of a library, or picking a pocket of a handkerchief. The same sentiment has been expressed by Mr Godwin, but in terms by much too strong, and such as show that he was not at the time complete master of his subject. "My neighbour (says he) has just as much right to put an end to my existence with dagger or poison, as to deny me that pecuniary assistance without which I must starve, or as to deny me that assistance without which my intellectual attainments, or my moral exertions, will be materially injured. He has just as much right to amuse himself with burning my house, or torturing my children upon the rack, as to shut himself up in a cell, careless about his fellow men, and to hide 'his talent in a napkin.'

It is certainly true, that the man who should suffer another to starve for want of that relief which he *knew* that he *alone* could afford him, would be guilty of murder, and murder of the cruellest kind; but there is an immense difference between depriving society of one of its members, and with-holding from that member what might be necessary to enable him to make the greatest possible intellectual attainments. Newton might have been useful and happy though he had never been acquainted with the elements of mathematics; and the late celebrated Mr Fergusson might have been a valuable member of society, though he had never emerged from his original condition of a shepherd. The remainder of the paragraph is too absurd to require a formal confutation.

Right, Righteousness.

Had our author, burying his talent in a napkin, shut himself up seven years ago in a cell, careless about his fellow men and *political justice*, he would have deprived the public of what he doubtless believes to be much useful instruction; but had he at that period amused himself with burning his neighbour's house, and torturing on the rack two or three children, he would have cut off, for any thing he could know, two or three future Newtons, and have himself been cut off by the insulted laws of his country. Now, without supposing the value of ten Newtons to be equal to that of one Godwin, we are warranted to say, that however great his merits may be, they are not infinite, and that the addition of those of one Newton to them would undoubtedly increase their sum.

13 Rights particular and general.

Rights are particular or general. Particular rights are such as belong to certain individuals or orders of men, and not to others. The rights of kings, of masters, of husbands, of wives, and, in short, all the rights which originate in society, are particular. General rights are those which belong to the species collectively. Such are our rights to the vegetable produce of the earth and to the flesh of animals for food, though about the origin of this latter right there has been much diversity of opinion, which we have noticed in another place. (See THEOLOGY, part 1. sect. 2d). If the vegetable produce of the earth be included under the general rights of mankind, it is plain that he is guilty of wrong who leaves any considerable portion of land waste merely for his own amusement: he is lessening the common stock of provision which Providence intended to distribute among the species. On this principle it would not be easy to vindicate certain regulations respecting game, as well as some other monopolies which are protected by the municipal laws of most countries. Mr Paley, by just reasoning, has established this conclusion, "that nothing ought to be made exclusive property which can be conveniently enjoyed in common." An equal division of land, however, the dream of some visionary reformers, would be injurious to the general rights of mankind, as it may be demonstrated, that it would lessen the common stock of provisions, by laying every man under the necessity of being his own weaver, tailor, shoemaker, smith, and carpenter, as well as ploughman, miller and baker. Among the general rights of mankind is the right of *necessity*; by which a man may use or destroy his neighbour's property when it is absolutely necessary for his own preservation. It is on this principle that goods are thrown overboard to save the ship, and houses pulled down to stop the progress of a fire. In such cases, however, at least in the last, restitution ought to be made when it is in our power; but this restitution will not extend to the original value of the property destroyed, but only to what it was worth at the time of destroying it, which, considering its danger, may be very little.

14 Rights of necessity.

RIGHTEOUSNESS, means justice, honesty, virtue, goodness, and amongst Christians is of exactly the same import with holiness, without which, we are told, no man shall see the Lord. The doctrine of the fall, and of redemption through Jesus Christ, has occasioned much disputation, and given rise to many singular notions in the world. The haughty philosopher, dissatisfied with mysteries, and with the humiliating doctrine of atonement by a crucified Saviour, has made a religion for himself, which he calls *rational Christianity*; and the enthusiast, by extracting doctrines from Scripture which are not contained in it, and which are repugnant to its spirit, has given too much countenance to this presumption. The doctrine of imputed righteousness, by which the merit of Christ is said to be imputed to us, appears to be of this number; and though it has been held by many good, and by some learned men, it is certainly in general unfriendly to virtue, as will be readily allowed by all who have conversed with the more ignorant sort of Methodists in England or Seceders in Scotland. That it does not follow from the doctrine of the atonement, and consequently that it has no foundation in Scripture, will appear elsewhere. See THEOLOGY.

Righteousness. || Rigoll.

Bill of RIGHTS, in *Law*, is a declaration delivered by the lords and commons to the prince and princess of Orange, 13th February 1688; and afterwards enacted in parliament, when they became king and queen. It sets forth, that King James did, by the assistance of divers evil counsellors, endeavour to subvert the laws and liberties of this kingdom, by exercising a power of dispensing with and suspending of laws; by levying money for the use of the crown by pretence of prerogative without consent of parliament; by prosecuting those who petitioned the king, and discouraging petitions; by raising and keeping a standing army in time of peace; by violating the freedom of election of members to serve in parliament; by violent prosecutions in the court of king's bench; and causing partial and corrupt jurors to be returned on trials, excessive bail to be taken, excessive fines to be imposed, and cruel punishments inflicted; all which were declared to be illegal. And the declaration concludes in these remarkable words: "And they do claim, demand, and insist upon, all and singular the premises, as their undoubted rights and liberties." And the act of parliament itself (1 W. and M. stat. 2. cap. 2.) recognizes "all and singular the rights and liberties, asserted and claimed in the said declaration, to be the true, ancient, indubitable rights of the people of this kingdom." See LIBERTY.

RIGIDITY, in *Physics*, denotes a brittle hardness. It is opposed to ductility, malleability, and softness.

RIGOLL, or REGALS, a kind of musical instrument, consisting of several sticks bound together, only separated by beads. It is tolerably harmonious, being well struck with a ball at the end of a stick. Such is the account which Grassineau gives of this instrument. Skinner, upon the authority of an old English dictionary, represents it as a clavichord, or claricord; possibly founding his opinion on the nature of the office of the tuner of the regals, who still subsists in the establishment of the king's chapel at St James's, and whose business is to keep the organ of the chapel royal in tune; and not knowing that such wind instruments as the organ need frequent tuning, as well as the clavichord and other stringed instruments. Sir Henry Spelman derives the word *rigoll* from the Italian *rigabello*, a musical instrument, anciently used in churches instead of the organ. Walther, in his description of the regal, makes it to be a reed-work in an organ, with metal and also wooden pipes and bellows adapted to it. And he adds, that the name of it is supposed to be owing to its having been presented by the inventor to some king.—From an account

count of the regal used in Germany, and other parts of Europe, it appears to consist of pipes and keys on one side, and the bellows and wind-chest on the other. We may add, that Lord Bacon (Nat. Hist. cent. ii. 102.) distinguishes between the regal and organ, in a manner which shows them to be instruments of the same class. Upon the whole, there is reason to conclude, that the regal or rigoll was a pneumatic, and not a stringed instrument.

Mersennus relates, that the Flemings invented an instrument, *les regales de bois*, consisting of 17 cylindrical pieces of wood, decreasing gradually in length, so as to produce a succession of tones and semitones in the diatonic series, which had keys, and was played on as a spinet; the hint of which, he says, was taken from an instrument, in use among the Turks, consisting of 12 wooden cylinders, of different lengths, strung together, which being suspended and struck with a stick, having a ball at the end, produced music. Hawkins's Hist. Mus. vol. ii. p. 449.

RIGOR, in *Medicine*, a convulsive shuddering from severe cold, an ague fit, or other disorder.

RIMINI, an ancient, populous, and handsome town of Italy, in Romagna, which is part of the territory of the church, with a bishop's see, an old castle, and a strong tower; as also many remains of antiquity, and very fine buildings. It is famous for a council in 1359, consisting of 400 bishops, who were all Arians except 20. It is seated in a fertile plain, at the mouth of the river Marecchia, on the gulf of Venice. E. Long. 12. 39. N. Lat. 44. 6.

RIND, the skin of any fruit that may be cut off or pared. Rind is also used for the inner bark of trees, or that whitish soft substance which adheres immediately to the wood. See PLANT.

RING, an ornament of gold and silver, of a circular figure, and usually worn on the finger.

The episcopal ring (which makes a part of the pontifical apparatus, and is esteemed a pledge of the spiritual marriage between the bishop and his church) is of very ancient standing. The fourth council of Toledo, held in 633, appoints, that a bishop condemned by one council, and found afterwards innocent by a second, shall be restored, by giving him the ring, staff, &c. From bishops, the custom of the ring has passed to cardinals, who are to pay a very great sum *pro jure annuli cardinalitii*.

RING, in *Navigation* and *Astronomy*, an instrument made use of for taking an altitude of the sun, &c. It is commonly of brass, about nine inches in diameter, suspended by a small swivel, at the distance of 45°, from the point of which there is a perforation, being the centre of a quadrant of 90° divided in the inner concave surface. It is to be held up by the swivel when used, and turned round to the sun, till his rays, falling through the hole, form a spot among the degrees, by which the required altitude is pointed out. This instrument is deemed preferable to the astrolabe, because the divisions are larger than on that instrument.

RINGS. The antiquity of rings is known from Scripture and profane authors. Judah left his ring or signet with Tamar (Gen. xxxviii. 18.). When Pharaoh committed the government of all Egypt to Joseph, he took his ring from his finger, and gave it to Joseph (Gen. xli. 42.). After the victory that the Israelites obtained over the Midianites, they offered to the Lord the rings, the bracelets, and the golden necklaces, and the ear-rings, that they had taken from the enemy (Numb. xxxi. 50.) The Israelitish women wore rings not only on their fingers, but also in their nostrils and their ears. St James distinguishes a man of wealth and dignity by the ring of gold that he wore on his finger (James ii. 2). At the return of the prodigal son, his father orders him to be dressed in a new suit of clothes, and to have a ring put upon his finger (Luke xv. 22.) When the Lord threatened King Jeconiah with the utmost effects of his anger, he tells him, that though he wore the signet or ring upon his finger, yet he should be torn off (Jer xxii 24.).

The ring was used chiefly to seal with: and the Scripture generally puts it in the hands of princes and great persons; as the king of Egypt, Joseph, Ahaz, Jezebel, King Ahasuerus, his favourite Haman, Mordecai who succeeded Haman in his dignity, King Darius (1 Kings xxi. 8.; Esther iii. 10, &c.; Dan. vi 17.) The patents and orders of these princes were sealed with their rings or signets; and it was this that secured to them their authority and respect. See the article SEAL.

RING-Bone. See FARRIERY *Index*.

RING-Ousel, a species of TURDUS. See ORNITHOLOGY *Index*.

RIO-GRANDE, a river of Africa, which runs from east to west through Negroland, and falls into the Atlantic ocean, in 11 degrees of latitude. Some take it to be a branch of the Niger, of which there is not the least proof.

RIO DE JANEIRO, the name of one of the provinces into which Brazil, the Portuguese portion of South America, is divided, and by far the most important in consequence of the discovery and improvement of the gold and diamond mines about 300 miles to the north-west. The diamond mines are the exclusive property of the crown, as well as a fifth part of the gold. The people have of late begun to manufacture many necessary articles for their own consumption. The soil is luxuriant, producing spontaneously most kinds of fruit; and the ground is covered with one continued forest of trees of perpetual verdure, which, from the exuberance of the soil, are so entangled with briars, thorns, and underwood, as to form a thicket absolutely impenetrable, except by some narrow foot-paths, which the inhabitants have made for their own convenience. The woods are extremely fragrant, from the many aromatic trees and shrubs with which they abound, and the fruits and vegetables of every climate thrive here almost without culture, and are to be procured in great abundance. The water is excellent; and among the ordinary productions of this richest province of Brazil may be ranked cotton, sugar, coffee, cocoa, wheat, rice, pepper, and abundance of tobacco. Vines are here met with in great perfection, but the grapes are not pressed for the purpose of obtaining wine. Gold, silver, and precious stones, are annually exported by the Portuguese, whose indolence has prevented them from giving to the world any satisfactory accounts concerning those remote regions which are subject to their authority. See BRASIL SUPPLEMENT.

Rio de Janeiro, or *St Sebastian*, an extensive city, the metropolis of the foregoing province of Brazil, and the see of a bishop. It has a very extensive and commodious

ous harbour, which is defended by a number of forts. The city is built upon ground which is rather low and was at one period of a swampy nature; it is environed by hills which exclude in a great measure the advantages of fresh air, both from the land and the sea, on which account the summers are inimical to health, the heat being almost suffocating. The different mechanics carry on their respective branches in distinct parts of the town, particular trades having particular streets assigned to them. The viceroy's palace is erected on the side of an extensive square; and there are fountains in different other squares, to which an aqueduct of considerable length conveys water over valleys by a double row of arches. On the exreme point are a fort called Santa Cruz, built on a prodigious rock of granite, and a Benedictine convent, jutting into the harbour, opposite to which is Serpent island, where there are houses for magazines and naval stores, together with a dock-yard. The warehouses for the reception and preparation of slaves from Africa for sale, are in another part of the harbour, known by the name of *Val Longo*. The city of Rio Janeiro is situated near the mouth of a river of the same name in the Atlantic ocean. The streets of this city are in general well paved and straight. The houses in general are two stories high, covered with tiles, and have balconies of wood extending in front of the upper stories; but the best of them have that dull and heavy appearance which must necessarily be the case when latticed windows supply the want of glass. The rocks in its vicinity are granite, of a red, white, or deep blue colour, the last being of a compact and hard texture.

Females of rank and distinction are said to have fine dark eyes, countenances full of animation, and their heads only ornamented with their tresses, which are bound up with ribbons and flowers. There are numerous convents and monasteries, and labour is in general performed by slaves, 20,000 of which are said to be annually imported. Rio de Janeiro is a city of very considerable extent, and the population, including slaves, has been estimated at 60,000; but according to Dr Morse, at no fewer than 200,000, as we find in his American Gazetteer, published in 1798; yet it appears extraordinary, that in such a city there is neither inn, nor hotel, nor any sort of accommodation for the reception of strangers. Such accommodation, however, is scarcely necessary, the weak and jealous government being so inhospitable, as to prohibit strangers from remaining on shore after the going down of the sun, and from walking the streets during the day without military spies.

When Mr Barrow visited this place, he found only two booksellers shops in it, after a long search, and many inquiries; but they contained nothing useful or interesting to a native of Britain. A number of old volumes on the subjects of alchemy and medicine, many more on church history and theological controversy, with a few on the mighty deeds of the house of Braganza, were all their catalogues contained.

It is said that the inhabitants sometimes go in small parties to the Public Garden, where they take supper, walk, and enjoy themselves with music and fireworks to a very late hour of the night.

Rio de Janeiro may justly be regarded as the grand central point on the coast of the Brazils, from which every other part of it may be at any time overawed. Its regular force is said to consist of two squadrons of cavalry, two regiments of artillery, six regiments of infantry, two battalions of disciplined militia, and 200 diciplined free negroes, making a sum total of more than 10,000 men; but Mr Barrow is of opinion that this estimate is much exaggerated, since during his stay in that city he could discover nothing to warrant such a conclusion; and he is inclined to think that the whole force of the Brazils united cannot exceed the number of 10,000 men. This place, which has for a time at least become the residence of the royal family and government of Portugal, will, no doubt, acquire additional importance, and may perhaps at some future period be the seat of a mighty empire.

Rio Janeiro, a river which rises in the western mountains of Brazil, and running east through that country, falls into the Atlantic ocean at St Sebastian.

RIOM, an ancient town of France, in the department of Puy de Dome; seated on a hill, in so agreeable a country, that it is called the *garden of Auvergne*. E. Long. 3. 12. N. Lat. 45. 51.

RIOT, in *Law*. The riotous assembling of 12 persons, or more, and not dispersing upon proclamation, was first made high treason by statute 3 and 4 Edw. VI. c. 5. when the king was a minor, and a change of religion to be effected: but that statute was repealed by statue 1 Mar. c. 1. among the other treasons created since the 25 Edw. III.; though the prohibition was in substance re-enacted, with an inferior degree of punishment, by statute 1 Mar. st. 2. c. 12. which made the same offence a single felony. These statutes specified and particularized the nature of the riots they were meant to suppress; as, for example, such as were set on foot with intention to offer violence to the privy-council, or to change the laws of the kingdom, or for certain other specific purposes; in which cases, if the persons were commanded by proclamation to disperse, and they did not, it was by the statute of Mary made felony, but within the benefit of clergy: and also the act indemnified the peace-officers and their assistants, if they killed any of the mob in endeavouring to suppress such riot. This was thought a necessary security in that sanguinary reign, when popery was intended to be re-established, which was like to produce great discontents: but at first it was made only for a year, and was afterwards continued for that queen's life. And, by statute 1 Eliz. c. 16. when a reformation in religion was to be once more attempted, it was revived and continued during her life also; and then expired. From the accession of James I. to the death of Queen Anne, it was never once thought expedient to revive it; but, in the first year of George I. it was judged necessary, in order to support the execution of the act of settlement, to renew it, and at one stroke to make it perpetual, with large additions. For, whereas the former acts expressly defined and specified what should be accounted a riot, the statute 1 Geo. I. c. 5. enacts, generally, that if any 12 persons are unlawfully assembled to the disturbance of the peace, and any one justice of the peace, sheriff, under-sheriff, or mayor of a town, shall think proper to command them by proclamation to disperse, if they contemn his orders and continue together for one hour afterwards, such contempt shall be felony without benefit of clergy. And farther, if the reading of the proclamation be by force opposed, or the reader be in any manner

Riot, Ripen.

manner wilfully hindered from the reading of it, such opposers and hinderers are felons without benefit of clergy; and all persons to whom such proclamation *ought to have been made*, and knowing of such hindrance, and not dispersing, are felons without benefit of clergy. There is the like indemnifying clause, in case any of the mob be unfortunately killed in the endeavour to disperse them; being copied from the act of Queen Mary. And by a subsequent clause of the new act, if any person, so riotously assembled, begin even before proclamation to pull down any church, chapel, meeting-house, dwelling-house, or out-houses, they shall be felons without benefit of clergy.

Riots, routs, and unlawful assemblies, must have three persons at least to constitute them. An *unlawful assembly* is, when three, or more, do assemble themselves together to do an unlawful act, as to pull down inclosures, to destroy a warren or the game therein; and part without doing it, or making any motion towards it. A *rout* is where three or more meet to do an unlawful act upon a common quarrel, as forcibly breaking down fences upon a right claimed of common, or of way, and make some advances towards it. A *riot* is where three or more actually do an unlawful act of violence, either with or without a common cause or quarrel; as if they beat a man; or hunt and kill game in another's park, chase, warren, or liberty; or do any other unlawful act with force and violence; or even do a lawful act, as removing a nuisance, in a violent and tumultuous manner. The punishment of unlawful assemblies, if to the number of 12, we have just now seen, may be capital, according to the circumstances that attend it; but, from the number of three to eleven, is by fine and imprisonment only. The same is the case in riots and routs by the common law; to which the pillory in very enormous cases has been sometimes superadded. And by the statute 13 Hen. IV. c. 7. any two justices, together with the sheriff or under-sheriff of the county, may come with the *possi comitatus*, if need be, and suppress any such riot, assembly, or rout, arrest the rioters, and record upon the spot the nature and circumstances of the whole transaction; which record alone shall be a sufficient conviction of the offenders. In the interpretation of which statute it hath been holden, that all persons, noblemen and others, except women, clergymen, persons decrepit, and infants under 15, are bound to attend the justices in suppressing a riot, upon pain of fine and imprisonment; and that any battery, wounding, or killing the rioters, that may happen in suppressing the riot, is justifiable. So that our ancient law, previous to the modern riot-act, seems pretty well to have guarded against any violent breach of the public peace; especially as any riotous assembly on a public or general account, as to redress grievances or pull down all inclosures, and also resisting the king's forces if sent to keep the peace, may amount to overt acts of high treason, by levying war against the king.

RIPEN, a sea-port town of Denmark, in North Jutland, and capital of a diocese of the same name, with a bishop's see, a good harbour, a castle, two colleges, and a public library. The tombs of several of the kings of Denmark are in the cathedral church, which is a very handsome structure. The harbour, which has contributed greatly to the prosperity of this place, is at a small distance, being seated at the mouth of the river Nipsaa, in a country which supplies the best beeves in Denmark. It is 45 miles north-west of Sleswick and 25 south-by-west of Wiburg. E. Long. 8. 94. N. Lat. 55. 25. The diocese is bounded on the north by those of Wiburg and Athuys, on the south by the duchy of Sleswick, and on the east and west by the sea.

Ripen. Ripening of Grain.

RIPENING *of Grain*, means its arriving to maturity. The following paper, which appeared in the first volume of the Transactions of the Royal Society of Edinburgh, may be worthy the attention of farmers in this country; where it frequently happens, from continued rains, that the corn is quite green when the frost sets in; in consequence of which, the farmers cut it down, without thinking it can possibly arrive at further maturity.

"Summer 1782 having been remarkably cold and unfavourable, the harvest was very late, and much of the grain, especially oats, was green even in October. In the beginning of October the cold was so great, that, in one night, there was produced on ponds near Kinneil, in the neighbourhood of Borrowstounness, ice three quarters of an inch thick. It was apprehended by many farmers, that such a degree of cold would effectually prevent the further filling and ripening of their corn. In order to ascertain this point, Dr Roebuck selected several stalks of oats, of nearly equal fulness, and immediately cut those which, on the most attentive comparison, appeared the best, and marked the others, but allowed them to remain in the field 14 days longer; at the end of which time, they too were cut, and kept in a dry room for 10 days. The grains of each parcel were then weighed; when 11 of the grains which had been left standing in the field were found to be equal in weight to 30 of the grains which had been cut a fortnight sooner, though even the best of the grains were far from being ripe. During that fortnight (viz. from October 7th to October 21st) the average heat, according to Fahrenheit's thermometer, which was observed every day at eight o'clock in the morning and six in the evening, was a little above 43. Dr Roebuck observes, that this ripening and filling of corn in so low a temperature should be the less surprising to us, when we reflect, that seed-corn will vegetate in the same degree of heat; and he draws an important inference from his observations, viz. That farmers should be cautious of cutting down their unripe corn, on the supposition that in a cold autumn it could fill no more."

A writer in the Scots Magazine for June 1792, under the signature of *Agricola*, when speaking on this subject, adds the following piece of information, viz. "That grain cut down before it is quite ripe will grow or spring equally well as ripe and plump grain, provided it is properly preserved. I relate this from a fact, and also on the authority of one of the most judicious and experienced farmers in this island, William Craik of Arbigland, Esq. near Dumfries, who was taught by such a season as this threatens to prove. This being the case, every wise economical farmer will preserve his ripe and plump grain for bread, and sow the green and seemingly shrivelled grain, with a perfect conviction that the plants proceeding from such seed will yield as strong and thriving corn as what grows from plump seed. By this means the farmer will enjoy the double advantage of having the corn most productive in flour for bread, and his light shrivelled grain will go much farther in seed than

than the plump grain would do. I saw the experiment made on wheat which was so shriveled that it was thought scarcely worth giving to fowls, and yet produced heavy large ears."

RIPHOEAN MOUNTAINS, are a chain of high mountains in Russia, to the north-east of the river Oby, where there are said to be the finest sables of the whole empire.

RIPHATH, or RIPHAT, second son of Gomer, and grandson of Japhet (Gen. x. 3. ריפת *Riphat*). In most copies he is called *Diphath* in the Chronicles (1 Chr. i. 6. דיפת *Diphat*). The resemblance of the two Hebrew letters ר *Resh* and ד *Daleth* is so much that they are very often confounded. But, to the credit of the translators of our English version be it said, that in this instance, as well as in many others, they have restored the original reading, and rendered it Riphath. The learned are not agreed about the country that was peopled by the descendants of Riphath. The Chaldee and Arabic take it for France; Eusebius for the country of the Sauromatæ; the Chronicon Alexandrinum for that of the Garamantæ; Josephus for Paphlagonia. Mela assures us, that anciently the people of this province were called *Riphatæi*, or Riphaces; and in Bithynia, bordering upon Paphlagonia, may be found the river Rhebus, a people called *Rhebantes*, and a canton of the same name. These reasons have prevailed with Bochart to believe, that Riphath peopled Paphlagonia. Others think he peopled the Montes Riphei; and this opinion seems the most reasonable to us, because the other sons of Gomer peopled the northern countries towards Scythia, and beyond the Euxine sea.

RISIBLE, any thing capable of exciting laughter.

Ludicrous is a general term, signifying, as may appear from its derivation, what is playsome, sportive, or jocular. *Ludicrous* therefore seems the genus, of which *risible* is a species, limited as above to what makes us laugh.

However easy it may be, concerning any particular object, to say whether it be risible or not, it seems difficult, if at all practicable, to establish any general character, by which objects of that kind may be distinguished from others. Nor is that a singular case; for, upon a review, we find the same difficulty in most of the articles already handled. There is nothing more easy, viewing a particular object, than to pronounce that it is beautiful or ugly, grand or little: but were we to attempt general rules for ranging objects under different classes according to these qualities, we should be much gravelled. A separate cause increases the difficulty of distinguishing risible objects by a general character: all men are not equally affected by risible objects, nor the same man at all times; for in high spirits a thing will make him laugh outright, which will scarcely provoke a smile in a grave mood. Risible objects, however, are circumscribed within certain limits. No object is risible but what appears slight, little, or trivial; for we laugh at nothing that is of importance to our own interest or to that of others. A real distress raises pity, and therefore cannot be risible, but a slight or imaginary distress, which moves not pity, is risible. The adventure of the fulling-mills in Don Quixote, is extremely risible; so is the scene where Sancho, in a dark night, tumbling into a pit, and attaching himself to the side by hand and foot, hangs there in terrible dismay till the morning, when he discovers himself to be within a foot of the bottom. A nose remarkably long or short, is risible; but to want it altogether, so far from provoking laughter, raises horror in the spectator. With respect to works both of nature and art, none of them are risible but what are out of rule; some remarkable defect or excess, a very long visage, for example, or a very short one. Hence nothing just, proper, decent, beautiful, proportioned, or grand, is risible.

Even from this slight sketch it will be readily conjectured, that the emotion raised by a risible object is of a nature so singular, as scarcely to find place while the mind is occupied with any other passion or emotion; and the conjecture is verified by experience; for we scarce ever find that emotion blended with any other. One emotion we must except; and that is, contempt raised by certain improprieties: every improper act inspires us with some degree of contempt for the author; and if an improper act be at the same time risible to provoke laughter, of which blunders and absurdities are noted instances, the two emotions of contempt and of laughter unite intimately in the mind, and produce externally what is termed a *laugh of derision* or *of scorn*. Hence objects that cause laughter may be distinguished into two kinds: they are either *risible* or *ridiculous*. A risible object is mirthful only; a ridiculous object is both mirthful and contemptible. The first raises an emotion of laughter that is altogether pleasant: the pleasant emotion of laughter raised by the other, is blended with the painful emotion of contempt; and the mixed emotion is termed *the emotion of ridicule*. The pain a ridiculous object gives me, is resented and punished by a laugh of derision. A risible object, on the other hand, gives me no pain: it is altogether pleasant by a certain sort of titillation, which is expressed externally by mirthful laughter. See RIDICULE.

Risible objects are so common, and so well understood, that it is unnecessary to consume paper or time upon them. Take the few following examples:

Falstaff. I do remember him at Clement's inn, like a man made after supper of a cheese-paring. When he was naked, he was, for all the world like a forked radish, with a head fantastically carved upon it with a knife.

Second Part, Henry IV. act iii. sc. 5.

The foregoing is of disproportion. The following examples are of slight or imaginary misfortunes.

Falstaff. Go fetch me a quart of sack, put a toast in't. Have I liv'd to be carried in a basket, like a barrow of butcher's offal, and to be thrown into the Thames! Well, if I be served such another trick, I'll have my brains ta'en out and butter'd, and give them to a dog for a new-year's gift. The rogues slighted me into the river with as little remorse as they would have drown'd a bitch's blind puppies, fifteen i'th' litter; and you may know by my size that I have a kind of alacrity in sinking; if the bottom were as deep as hell, I should down. I had been drown'd but that the shore was shelvy and shallow; a death that I abhor: for the water swells a man; and what a thing should I have been when I had been swell'd? I should have been a mountain of mummy.

Merry Wives of Windsor, act iii. sc. 15.

Falstaff.

Risible, Rite.

Falstaff. Nay, you shall hear, Master Brook, what I have suffer'd to bring this woman to evil for your good. Being thus cramm'd in the basket, a couple of Ford's knaves, his hinds, were call'd forth by their mistress, to carry me in the name of foul clothes to Datchet-lane. They took me on their shoulders, met the jealous knave their master in the door, who ask'd them once or twice what they had in their basket. I quak'd for fear, lest the lunatic knave would have search'd it; but Fate, ordaining he should be a cuckold, held his hand. Well, on went he for a search, and away went I for foul clothes. But mark the sequel, Master Brook. I suffer'd the pangs of three egregious deaths: first, an intolerable fright, to be detected by a jealous rotten bell-wether; next, to be compass'd like a good bilbo, in the circumference of a peck, hilt to point, heel to head; and then to be stopt in, like a strong distillation, with stinking clothes that fretted in their own grease. Think of that, a man of my kidney; think of that, that am as subject to heat as butter; a man of continual dissolution and thaw; it was a miracle to 'scape suffocation. And in the height of this bath, when I was more than half stew'd in grease, like a Dutch dish, to be thrown into the Thames, and cool'd glowing hot, in that surge, like a horse-shoe; think of that; hissing hot; think of that, Mr Brook.

Merry Wives of Windsor, act iii. sc. 17.

RITE, among divines, denotes the particular manner of celebrating divine service in this or that country.

Rite. Rival.

RITORNELLO, or REPEAT, in *Music*, the burden of a song, or the repetition of the first or other verses of a song at the end of each couplet.

RITTERHUSIUS, CONRAD, a learned German civilian, born at Brunswick in 1560. He was professor of civil law at Altdorf, and published a variety of works, particularly as a civilian; together with an edition of Oppian in Greek and Latin: he was moreover an excellent critic; his notes upon many eminent authors having been inserted in the best editions of them. He died in 1613.

RITUAL, a book directing the order and manner to be observed in performing divine service in a particular church, diocese, or the like. The ancient heathens had also their rituals, which contained their rites and ceremonies to be observed in building a city, consecrating a temple or altar, in sacrificing, and deifying, in dividing the curiæ, tribes, centuries, and, in general, in all their religious ceremonies. There are several passages in Cato's books, *De re Rustica*, which may give us some idea of the rituals of the ancients.

RIVAL, a term applied to two or more persons who have the same pretensions; and which is properly applied to a competitor in love, and figuratively to an antagonist in any other pursuit.

RIVER,

1 Definition.

IS a current of fresh water, flowing in a BED or CHANNEL from its source to the sea.

The term is appropriated to a *considerable* collection of waters, formed by the conflux of two or more BROOKS, which deliver into its channel the united streams of several RIVULETS, which have collected the supplies of many RILLS trickling down from numberless springs, and the torrents which carry off from the sloping grounds the surplus of every shower.

2 Utility of rivers.

Rivers form one of the chief features of the surface of this globe, serving as voiders of all that is immediately redundant in our rains and springs, and also as boundaries and barriers, and even as highways, and in many countries as plentiful storehouses. They also fertilize our soil by laying upon our warm fields the richest mould, brought from the high mountains, where it would have remained useless for want of genial heat.

3 Origin of their names.

Being such interesting objects of attention, every branch acquires a proper name, and the whole acquires a sort of personal identity, of which it is frequently difficult to find the principle; for the name of the great body of waters which discharges itself into the sea is traced backwards to one of the sources, while all the contributing streams are lost, although their waters form the chief part of the collection. And sometimes the feeder in which the name is preserved is smaller than others which are united to the current, and which like a rich but ignoble alliance lose their name in that of the more illustrious family. Some rivers indeed are respectable even at their birth, coming at once in force from some great lake. Such is the Rio de la Plata, the river St Laurence, and the mighty streams which issue in all directions from the Baical lake. But, like the sons of Adam, they are all of equal descent, and should take their name from one of the feeders of these lakes. This is indeed the case with a few, such as the Rhone, the Rhine, the Nile. These, after having mixed their waters with those of the lake, resume their appearance and their name at its outlet.

4 Origin and progress similar to the life of man.

But in general their origin and progress, and even the features of their character, bear some resemblance (as has been prettily observed by Pliny) to the life of man. The river springs from the earth; but its origin is in heaven. Its beginnings are insignificant, and its infancy is frivolous; it plays among the flowers of a meadow; it waters a garden, or turns a little mill. Gathering strength in its youth, it becomes wild and impetuous. Impatient of the restraints which it still meets with in the hollows among the mountains, it is restless and fretful; quick in its turnings, and unsteady in its course. Now it is a roaring cataract, tearing up and overturning whatever opposes its progress, and it shoots headlong down from a rock: then it becomes a sullen and gloomy pool, buried in the bottom of a glin. Recovering breath by repose, it again dashes along, till tired of the uproar and mischief, it quits all that it has swept along, and leaves the opening of the valley strewed with the rejected waste. Now quitting its retirement, it comes abroad into the world, journeying

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neying with more prudence and discretion, through cultivated fields, yielding to circumstances, and winding round what would trouble it to overwhelm or remove. It passes through the populous cities and all the busy haunts of man, tendering its services on every side, and becomes the support and ornament of the country. Now increased by numerous alliances, and advanced in its course of existence, it becomes grave and stately in its motions, loves peace and quiet; and in majestic silence rolls on its mighty waters, till it is laid to rest in the vast abyss.

5 The religious respect for rivers.

The philosopher, the real lover of wisdom, sees much to admire in the economy and mechanism of running waters; and there are few operations of nature which give him more opportunities of remarking the nice adjustment of the most simple means for attaining many purposes of most extensive beneficence. All mankind seems to have felt this. The heart of man is ever open (unless perverted by the habits of selfish indulgence and arrogant self-conceit) to impressions of gratitude and love. He who ascribes the religious principle (debased though it be by the humbling abuses of superstition) to the workings of fear alone, may betray the slavish meanness of his own mind, but gives a very unfair and a false picture of the hearts of his neighbours. Lucretius was but half a philosopher when he penned his often quoted apophthegm. Indeed his own invocation shows how much the animal was blended with the sage.

6 The effect of gratitude and affection.

We apprehend, that whoever will read with an honest and candid mind, unbiassed by licentious wishes, the accounts of the ancient superstitions, will acknowledge that the amiable emotions of the human soul have had their share in creating the numerous divinities whose worship filled up their kalendars. The sun and the host of heaven have in all ages and nations been the objects of a sincere worship. Next to them, the rivers seem to have attracted the grateful acknowledgments of the inhabitants of the adjacent countries. They have everywhere been considered as a sort of tutelar divinities; and each little district, every retired valley, had its river god, who was preferred to all others with a partial fondness. The expostulation of Naaman the Syrian, who was offended with the prophet for enjoining him to wash in the river Jordan, was the natural effusion of this attachment. "What! (said he), are not Abana and Pharpar, rivers of Damascus, more excellent than all the waters of Judea? Might I not wash in them and be clean? So he went away wroth."

In those countries particularly, where the rural labours, and the hopes of the shepherd and the husbandman, were not so immediately connected with the approach and recess of the sun, and depended rather on what happened in a far distant country by the falls of periodical rains or the melting of collected snows, the Nile, the Ganges, the Indus, the river of Pegu, were the sensible agents of nature in procuring to the inhabitants of their fertile banks all their abundance, and they became the objects of grateful veneration. Their sources were sought out with anxious care even by conquering princes; and when found, were universally worshipped with the most affectionate devotion. These remarkable rivers, so eminently and so palpably beneficent, preserve to this day, amidst every change of habit, and every increase of civilization and improvement, the fond adoration of the inhabitants of these fruitful countries through which they hold their stately course, and their waters are still held sacred. No progress of artificial refinement, not all the corruption of luxurious sensuality, has been able to eradicate this plant of native growth from the heart of man. The sentiment is congenial to his nature, and therefore it is universal; and we could almost appeal to the feelings of every reader, whether he does not perceive it in his own breast. Perhaps we may be mistaken in our opinion in the case of the corrupted inhabitants of the populous and busy cities, who are habituated to the fond contemplation of their own individual exertions as the sources of all their hopes. Give the shoemaker but leather and a few tools, and he defies the powers of nature to disappoint him; but the simpler inhabitants of the country, the most worthy and the most respectable part of every nation, after equal, perhaps greater exertion both of skill and of industry, are more accustomed to resign themselves to the great ministers of Providence, and to look up to heaven for the "early and the latter rains," without which all their labours are fruitless.

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——————extrema per illos
Numenque excedens terris vestigia fecit.

And among the husbandmen and the shepherds of all nations and ages, we find the same fond attachment to their springs and rivulets.

Fortunate senex, hic inter flumina nota
Et fontes sacros frigus captabis opacum,

was the mournful ejaculation of poor Melibœus. We hardly know a river of any note in our own country whose source is not looked on with some respect.

We repeat our assertion, that this worship was the offspring of affection and gratitude, and that it is giving a very unfair and false picture of the human mind to ascribe these superstitions to the working of fear alone. These would have represented the river gods as seated on ruins, brandishing rooted-up trees, with angry looks, pouring out their sweeping torrents. But no such thing. The lively imagination of the Greeks felt, and expressed with an energy unknown to all other nations, every emotion of the human soul. They figured the Naiads as beautiful nymphs, patterns of gentleness and of elegance. These are represented as partially attached to the children of men; and their interference in human affairs is always in acts of kind assistance and protection. They resemble, in this respect, the rural deities of the northern nations, the fairies, but without their caprices and resentments. And if we attend to the descriptions and representations of their River-Gods, beings armed with power, an attribute which slavish fear never fails to couple with cruelty and vengeance, we shall find the same expression of affectionate trust and confidence in their kind dispositions. They are generally called by the respectable but endearing name of *father*. "*Da Tyberi pater*" says Virgil. Mr Bruce says that the Nile at its source is called the *abay* or "father." We observe this word, or its radix, blended with many names of rivers of the east; and think it probable that when our traveller got this name from the inhabitants of the neighbourhood, they applied to the stream what is meant to express the tutelar or presiding

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presiding spirit. The river gods are always represented as venerable old men, to indicate their being coeval with the world. But it is always a *cruda viridisque senectus*, and they are never represented as oppressed with age and decrepitude. Their beards are long and flowing, their looks placid, their attitude easy, reclined on a bank, covered, as they are crowned, with never-fading sedges and bulrushes, and leaning on their urns, from which they pour out their plentiful and fertilizing streams. —Mr Bruce's description of the sources of the Nile, and of the respect paid to the sacred waters, has not a frowning feature; and the hospitable old man, with his fair daughter Irepone, and the gentle priesthood which peopled the little village of Geesh, form a contrast with the neighbouring Galla (among whom a military leader was called the *lamb*, because he did not murder pregnant women), which very clearly paints the inspiring principle of this superstition. Pliny says (lib. viii. 8.) that at the source of the Clitumnus there is an ancient temple highly respected. The presence and the power of the divinity are expressed by the fates which stand in the vestibule.—Around this temple are several little chapels, each of which covers a sacred fountain; for the Clitumnus is the father of several little rivers which unite their streams with him. At some distance below the temple is a bridge which divides the sacred waters from those which are open to common use. No one must presume to set his foot in the streams above this bridge; and to step over any of them is an indignity which renders a person infamous. They can only be visited in a consecrated boat. Below the bridge we are permitted to bathe, and the place is incessantly occupied by the neighbouring villagers. See also *Vibius Sequestr. Orbelini*, p. 101—103. and 221—223. also *Sueton. Caligula*, c. 43. *Virg. Georg.* ii. 146.

What is the cause of all this? The Clitumnus flows (near its source) through the richest pastures, through which it was carefully distributed by numberless drains; and these nourished cattle of such spotless whiteness and extraordinary beauty, that they were sought for with eagerness over all Italy, as the most acceptable victims in their sacrifices. Is not this superstition then an effusion of gratitude?

Such are the dictates of kind-hearted nature in our breasts, before it has been vitiated by vanity and self-conceit, and we should not be ashamed of feeling the impression. We hardly think of making any apology for dwelling a little on this incidental circumstance of the superstitious veneration paid to rivers. We cannot think that our readers will be displeased at having agreeable ideas excited in their minds, being always of opinion that the torch of true philosophy will not only enlighten the understanding, but also warm and cherish the affections of the heart.

7 Origin of rivers.

With respect to the origin of rivers, we have very little to offer in this place. It is obvious to every person, that besides the torrents which carry down into the rivers what part of the rains and melted snows is not absorbed by the soil or taken up by the plants which cover the earth, they are fed either immediately or remotely by the springs. A few remarkable streams rush at once out of the earth in force, and must be considered as the continuation of subterraneous rivers, whose origin we are therefore to seek out; and we do not know any circumstance in which their first beginnings differ from those of other rivers, which are formed by the union of little streams and rills, each of which has its own source in a spring or fountain. This question, therefore, What is the process of nature, and what are the supplies which fill our springs? will be treated of under the word Spring.

Whatever be the source of rivers, it is to be met with in almost every part of the globe. The crust of earth with which the rocky framing of this globe is covered is generally stratified. Some of these strata are extremely pervious to water, having but small attraction for its particles, and being very porous. Such is the quality of gravelly strata in an eminent degree. Other strata are much more firm, or attract water more strongly, and refuse it passage. This is the case with firm rock and with clay. When a stratum of the first kind has one of the other immediately under it, the water remains in the upper stratum, and bursts out wherever the sloping sides of the hills cut off the strata, and this will be the form of a trickling spring, because the water in the porous stratum is greatly obstructed in its passage towards the outlet. As this irregular formation of the earth is very general, we must have springs, and of course rivers or rivulets, in every corner where there are high grounds.

8 They flow from the higher to the lower grounds.

Rivers flow from the higher to the low grounds. It is the arrangement of this elevation which distributes them over the surface of the earth. And this appears to be accomplished with considerable regularity; and, except the great desert of Kobi on the confines of Chinese Tartary, we do not remember any very extensive tract of ground that is deprived of those channels for voiding the superfluous waters; and even there they are far from being redundant.

9 Course of the rivers of Europe.

The courses of rivers give us the best general method for judging of the elevation of a country. Thus it appears that Savoy and Switzerland are the highest grounds of Europe, from whence the ground slopes in every direction. From the Alps proceed the Danube and the Rhine, whose courses mark the two great valleys, into which many lateral streams descend. The Po also and the Rhone come from the same head, and with a steeper and shorter course find their way to the sea through valleys of less breadth and length. On the west side of the valleys of the Rhine and the Rhone the ground rises pretty fast, so that few tributary streams come into them from that side; and from this gentle elevation France slopes to the westward. If a line, nearly straight, but bending a little to the northward, be drawn from the head of Savoy and Switzerland all the way to Solikamskoy in Siberia, it will nearly pass through the most elevated part of Europe; for in this tract most of the rivers have their rise. On the left go off the various feeders of the Elbe, the Oder, the Wesel, the Niemen, the Duna, the Neva, the Dwina, the Petzora. On the right, after passing the feeders of the Danube, we see the sources of the Sereth and Pruth, the Dniester, the Bog, the Dnieper, the Don, and the mighty Volga. The elevation, however, is extremely moderate: and it appears from the levels taken with the barometer by the Abbe Chappe d'Auteroche, that the head of the Volga is not more than 470 feet above the surface of the ocean. And we may observe here by the bye, that its mouth, where it

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it discharges its waters into the Caspian sea, is undoubtedly lower by many feet, than the surface of the ocean. See PNEUMATICS, N° 277. Spain and Finland, with Lapland, Norway, and Sweden, form two detached parts, which have little symmetry with the rest of Europe.

10 Of Asia,

A chain of mountains begins in Nova Zembla, and stretches due south to near the Caspian sea, dividing Europe from Asia. About three or four degrees north of the Caspian sea it bends to the south-east, traverses western Tartary, and passing between the Tengis and Zaizan lakes, it then branches to the east and south. The eastern branch runs to the shores of Korea and Kamtschatka. The southern branch traverses Turkestan and Thibet, separating them from India, and at the head of the kingdom of Ava joins an arm stretching from the great eastern branch, and here forms the centre of a very singular radiation. Chains of mountains issue from it in every direction. Three or four of them keep very close together, dividing the continent into narrow slips, which have each a great river flowing in the middle, and reaching to the extreme points of Malacca, Cambodia, and Cochin-china. From the same central point proceeds another great ridge due east, and passes a little north of Canton in China. We called this a singular centre; for though it sends off so many branches, it is by no means the most elevated part of the continent. In the triangle which is included between the first southern ridge (which comes from between the lakes Tengis and Zaizan), the great eastern ridge, and its branch which almost unites with the southern ridge, lies the Boutan, and part of Thibet, and the many little rivers which occupy its surface flow southward and eastward, uniting a little to the north of the centre often mentioned, and then pass through a gorge eastward into China. And it is farther to be observed, that these great ridges do not appear to be seated on the highest parts of the country; for the rivers which correspond to them are at no great distance from them, and receive their chief supplies from the other sides. This is remarkably the case with the great Oby, which runs almost parallel to the ridge from the lakes to Nova Zembla. It receives its supplies from the east, and indeed it has its source far east. The higher grounds (if we except the ridges of mountains which are boundaries) of the continent seem to be in the country of the Calmucs, about 95° east from London, and latitude 43° or 45° north. It is represented as a fine though sandy country, having many little rivers which lose themselves in the sand, or end in little salt lakes. This elevation stretches north-east to a great distance; and in this tract we find the heads of the Irtish, Selenga, and Tunguskaia (the great feeders of the Oby), the Olenitz, the Lena, the Yana, and some other rivers, which all go off to the north. On the other side we have the great river Amur, and many smaller rivers, whose names are not familiar. The Hoangho, the great river of China, rises on the south side of the great eastern ridge we have so often mentioned. This elevation, which is a continuation of the former, is somewhat of the same complexion, being very sandy, and at present is a desert of prodigious extent. It is described, however, as interspersed with vast tracts of rich pasture; and we know that it was formerly the residence of a great nation, who came south, by the name of *Turks*, and possessed themselves of most of the richest kingdoms of Asia. In the south-western extremity of this country are found remains not only of barbaric magnificence, but even of cultivation and elegance. It was a profitable privilege granted by Peter the Great to some adventurers to search these sandy deserts for remains of former opulence, and many pieces of delicate workmanship (though not in a style which we would admire) in gold and silver were found. Vaults were found buried in the sand filled with written papers, in a character wholly unknown; and a wall was discovered extending several miles, built with hewn stone, and ornamented with corniche and battlements. But we are forgetting ourselves, and return to the consideration of the distribution of the rivers on the surface of the earth. A great ridge of mountains begins at the south-east corner of the Euxine sea, and proceeds eastward, ranging along the south side of the Caspian, and still advancing unites with the mountains first mentioned in Thibet, sending off some branches to the south, which divide Persia, India, and Thibet. From the south side of this ridge flow the Euphrates, Tigris, Indus, Ganges, &c. and from the north the ancient Oxus and many unknown streams.

There is a remarkable circumstance in this quarter of the globe. Although it seems to be nearest to the greatest elevations, it seems also to have places of the greatest depression. We have already said that the Caspian sea is lower than the ocean. There is in its neighbourhood another great bason of salt water, the lake Aral, which receives the waters of the Oxus or Gishon, which were said to have formerly run into the Caspian sea. There cannot, therefore, be a great difference in the level of these two basons; neither have they any outlet, though they receive great rivers. There is another great lake in the very middle of Persia, the Zare or Zara, which receives the river Hindemend, of near 250 miles length, besides other streams. There is another such in Asia Minor. The sea of Sodom and Gomorrah is another instance. And in the high countries we mentioned, there are many small salt lakes, which receive little rivers, and have no outlet. The lake Zara in Persia, however, is the only one which indicates a considerable hollow of the country. It is now ascertained, by actual survey, that the sea of Sodom is considerably higher than the Mediterranean. This feature is not, however, peculiar to Asia. It obtains also in Africa, whose rivers we now proceed to mention.

11 of Africa,

Of them, however, we know very little. The Nile indeed is perhaps better known than any river out of Europe; and of its source and progress we have given a full account in a separate article. See NILE.

By the register of the weather kept by Mr Bruce at Gondar in 1770 and 1771, it appears that the greatest rains are about the beginning of July. He says that at an average each month after June it doubles its rains. The calish or canal is opened at Cairo about the 9th of August, when the river has risen 14 peeks (each 21 inches), and the waters begin to decrease about the 10th of September. Hence we may form a conjecture concerning the time which the latter employs in coming from Abyssinia. Mr Bruce supposes it 9 days, which supposes a velocity not less than 14 feet in a second; a thing past belief, and inconsistent with all our notions. The general slope of the river is greatly diminished by several great cataracts; and Mr Bruce expressly says, that he

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he might have come down from Sennaar to the cataracts of Syene in a boat, and that it is navigable for boats far above Sennaar. He came from Syene to Cairo by water. We apprehend that no boat would venture down a stream moving even six feet in a second, and none could row up if the velocity was three feet. As the waters begin to decrease about the 10th of September, we must conclude that the water then flowing past Cairo had left Abyssinia when the rains had greatly abated. Judging in this way, we must still allow the stream a velocity of more than six feet Had the first swell at Cairo been noticed in 1770 or 1771, we might have guessed better. The year that Thevenot was in Egypt, the first swell of eight peeks was observed Jan. 28. The calish was opened for 14 peeks on Aug. 14. and the waters began to decrease on Sept. 23. having risen to 21⅔ peeks. We may suppose a similar progress at Cairo corresponding to Mr Bruce's observations at Gondar, and date every thing five days earlier.

We understand that some of our gentlemen stationed far up the Ganges have had the curiosity to take notes of the swellings of that river, and compare them with the overflowings at Calcutta, and that their observations are about to be made public. Such accounts are valuable additions to our practical knowledge, and we shall not neglect to insert the information in some kindred article of this work.

The same mountains which attract the tropical vapours, and produce the fertilizing inundations of the Nile, perform the same office to the famous Niger, whose existence has often been accounted fabulous, and with whose course we have very little acquaintance. The researches of the gentlemen of the African association render its existence no longer doubtful, and have greatly excited the public curiosity. For a farther account of its tract, see NIGER.

From the great number, and the very moderate size, of the rivers which fall into the Atlantic ocean all the way south of the Gambia, we conclude that the western shore is the most elevated, and that the mountains are at no great distance inland. On the other hand, the rivers at Melinda and Sofala are of a magnitude which indicates a much longer course. But of all this we speak with much uncertainty.

12 and of America.

The frame-work (so to call it) of America is better known, and is singular.

A chain of mountains begins, or at least is found, in longitude 110° west of London, and latitude 40° north, on the northern confines of the kingdom of Mexico, and stretching southward through that kingdom, forms the ridge of the neck of land which separates North from South America, and keeping almost close to the shore, ranges along the whole western coast of South America, terminating at Cape Horn. In its course it sends off branches, which after separating from it for a few leagues, rejoin it again, inclosing valleys of great extent from north to south, and of prodigious elevation. In one of these, under the equatorial sun, stands the city of Quito, in the midst of extensive fields of barley, oats, wheat, and gardens, containing apples, pears, and gooseberries, and in short all the grains and fruits of the cooler parts of Europe; and although the vine is also there in perfection, the olive is wanting. Not a dozen miles from it in the low countries, the sugar-cane, the indigo, and all the fruits of the torrid zone, find their congenial heat, and the inhabitants swelter under a burning sun. At a small distance on the other hand tower aloft the Pinnacles of Pichincha, Corambouron, and Chimboracao, crowned with never-melting snows.

The individual mountains of this stupenduous range not only exceed in height all others in the world (if we except the Peak of Teneriffe, Mount Ætna, and Mont Blanc); but they are set down on a base incomparably more elevated than any other country. They cut off therefore all communication between the Pacific ocean and the inland continent; and no rivers are to be found on the west coast of South America which have any considerable length of course or body of waters. The country is drained, like Africa, in the opposite direction. Not 100 miles from the city of Lima, the capital of Peru, which lies almost on the sea-shore, and just at the foot of the high Cordilleras, arises out of a small lake the Maragnon or Amazon's river, which, after running northward for about 100 miles, takes an easterly direction, and crosses nearly the broadest part of South America, and falls into the great western ocean at Para, after a course of not less than 3500 miles. In the first half of its descent it receives a few middle-sized rivers from the north and from the south it receives the great river Combos, springing from another little lake not 50 miles distant from the head of the Maragnon, and inclosing between them a wide extent of country. Then it receives the Yuta, the Yuerva, the Cuchivara, and Parana Mire, each of which is equal to the Rhine; and then the Madeira, which has flowed above 1300 miles. At their junction the breadth is so great, that neither shore can be seen by a person standing up in a canoe: so that the united stream must be about six miles broad. In this majestic form it rolls along at a prodigious rate through a flat country, covered with impenetrable forests, and most of it as yet untrodden by human feet. Mr Condamine, who came down the stream, says, that all is silent as the desert, and the wild beasts and numberless birds crowd round the boat, eyeing it as some animal of which they did not seem afraid. The bed was cut deep through an equal and yielding soil, which seemed rich in every part, if he could judge by the vegetation, which was rank in the extreme. What an addition this to the possible population of this globe! A narrow slip along each bank of this mighty river would equal in surface the whole of Europe, and would probably exceed it in general fertility; and although the velocity in the main stream was great, he observed that it was extremely moderate, nay almost still, at the sides; so that in those parts where the country was inhabited by men, the Indians paddled up the river with perfect ease. Boats could go from Para to near the mouth of the Madeira in 38 days, which is near 1200 miles.

Mr Condamine made an observation during his passage down the Maragnon, which is extremely curious and instructive, although it puzzled him very much. He observed that the tide was sensible at a vast distance from the mouth: It was very considerable at the junction of the Madeira; and he supposes that it might have been observed much farther up. This appeared to him very surprising, because there could be no doubt but that the surface of the water there was higher by a great many feet than the surface of the flood of the Atlantic ocean at the mouth of the river. It was therefore

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fore very natural for him to ascribe the tide in the Maragnon to the immediate action of the moon on its waters; and this explanation was the more reasonable, because the river extends in the direction of terrestrial longitude, which by the Newtonian theory is most favourable to the production of a tide. Journeying as he did in an Indian canoe, we cannot suppose that he had much leisure or conveniency for calculations, and therefore are not surprised that he did not see that even this circumstance was of little avail in so small or shallow a body of water. He carefully noted, however, the times of high and low water as he passed along. When arrived at Para, he found not only that the high water was later and later as we are farther from the mouth, but he found that at one and the same instant there were several points of high water between Para and the confluence of the Madeira, with points of low water intervening. This conclusion was easily drawn from his own observations, although he could not see at one instant the high waters in different places. He had only to compute the time of high water at a particular spot, on the day he observed it at another; allowing, as usual, for the moon's change of position. The result of his observations therefore was, that the surface of the river was not an inclined plane whose slope was lessened by the tide of flood at the mouth of the river, but that it was a waving line, and that the propagation of the tide up the river was nothing different from the propagation of any other wave. We may conceive it clearly, though imperfectly, in this way. Let the place be noted where the tide happens 12 hours later than at the mouth of the river. It is evident that there is also a tide at the very mouth at the same instant; and, since the ocean tide had withdrawn itself during the time that the former tide had proceeded so far up the river, and the tide of ebb is successively felt above as well as the tide of flood, there must be a low water between these two high waters.

Newton had pointed out this curious fact, and observed that the tide at London-Bridge, which is 43 feet above the sea, is not the same with that at Gravesend, but the preceding tide (see Phil. Trans. 67). This will be more particularly insisted on in another place.

Not far from the head of the Maragnon, the Cordilleras send off a branch to the north-east, which reaches and ranges along the shore of the Mexicen gulf, and the Rio Grande de Sta Martha occupies the angle between the ridges.

Another ridge ranges with interruption along the east coast of Terra Firma, so that the whole waters of this country are collected into the Oroonoko. In like manner the north and east of Brazil are hemmed in by mountainous ridges, through which there is no considerable passage; and the ground sloping backwards, all the waters of this immense tract are collected from both sides by many considerable rivers into the great river Paraguay, or Rio de la Plata, which runs down the middle of this country for more than 1400 miles, and falls into the sea through a vast mouth in latitude 35°.

Thus the whole of South America seems as if it had been formerly surrounded by a mound, and been a great bason. The ground in the middle, where the Parana, the Madeira, and the Plata, take their rise, is an immense marsh, uninhabitable for its exhalations, and quite impervious in its present state.

The manner in which the continent of North America is watered, or rather drained, has also some peculiarities. By looking at the map, one will observe first of all a general division of the whole of the best known part into two, by the valleys in which the beds of the rivers St Laurence and Missisippi are situated. The head of this is occupied by a singular series of fresh water seas or lakes, viz. the lakes Superior and Michigan, which empty themselves into Lake Huron by two cataracts. This again runs into Lake Erie by the river Detroit, and the Erie pours its waters into the Ontario by the famous fall of Niagara, and from the Ontario proceeds the great river St Laurence.

The ground to the south-west of the lakes Superior and Erie is somewhat lower, and the middle of the valley is occupied by the Missisippi and the Missouri, which receive on both sides a number of smaller streams, and having joined proceed to the south, under the name Missisippi. In latitude 37, this river receives into its bed the Ohio, a river of equal magnitude, and the Cherokee river, which drains all the country lying at the back of the United States, separated from them by the ranges of the Apalachian mountains. The Missisippi is now one of the chief rivers on the globe, and proceeds due south, till it falls into the Mexican bay through several shifting mouths, which greatly resemble those of the Danube and the Nile, having run above 1200 miles.

The elevated country between this bed of the Missisippi and St Laurence and the Atlantic ocean is drained on the east side by a great number of rivers, some of which are very considerable, and of long course; because instead of being nearly at right angles to the coast, as in other countries, they are in a great measure parallel to it. This is more remarkably the case with Hudson's river, the Delaware, Patomack, Rapahanoc, &c. Indeed the whole of North America seems to consist of ribs or beams laid nearly parallel to each other from north to south, and the rivers occupy the interstices. All those which empty themselves into the bay of Mexico are parallel and almost perfectly straight, unlike what are seen in other parts of the world. The westernmost of them all, the North River, as it is named by the Spaniards, is nearly as long as the Missisippi.

We are very little informed as yet of the distribution of rivers on the north-west coast of America, or the course of those which run into Hudson's or Baffin's bay.

13 Of the great rivers.

The Maragnon is undoubtedly the greatest river in the world, both as to length of run and the vast body of water which it rolls along. The other great rivers succeed nearly in the following order:

Maragnon,	Amur,
Senegal,	Oroonoko,
Nile,	Ganges,
St Laurence,	Euphrates,
Hoangho,	Danube,
Rio de la Plata,	Don,
Yenisey,	Indus,
Missisippi,	Dnieper,
Volga,	Duina,
Oby,	&c.

We

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We have been much assisted in this account of the course of rivers, and their distribution over the globe, by a beautiful planisphere or map of the world published by Mr Bode astronomer royal at Berlin. The ranges of mountains are there laid down with philosophical discernment and precision; and we recommend it to the notice of our geographers. We cannot divine what has caused Mr Buffon to say that the course of most rivers is from east to west or from west to east. No physical point of his system seems to require it, and it needs only that we look at his own map to see its falsity. We should naturally expect to find the *general* course of rivers nearly perpendicular to the line of sea-coast; and we find it so; and the chief exceptions are in opposition to Mr Buffon's assertion. The structure of America is so particular, that *very few* of its rivers have their general course in this direction. We proceed now to consider the motion of rivers; a subject which naturally resolves itself into two parts, *theoretical* and *practical*.

Theory.

Part I. THEORY of the MOTION of RIVERS and CANALS.

14 Importance of the doctrine of the motion of rivers and canals.

THE importance of this subject needs no commentary. Every nation, every country, every city is interested in it. Neither our wants, our comforts, nor our pleasures, can dispense with an ignorance of it. We must conduct their waters to the centre of our dwellings; we must secure ourselves against their ravages; we must employ them to drive those machines which, by compensating for our personal weakness, make a few able to perform the work of thousands; we employ them to water and fertilize our fields, to decorate our mansions, to cleanse and embellish our cities, to preserve or extend our demesnes, to transport from county to county every thing which necessity, convenience, or luxury, has rendered precious to man: for these purposes we must confine and govern the mighty rivers, we must preserve or change the beds of the smaller streams, draw off from them what shall water our fields, drive our machines, or supply our houses. We must keep up their waters for the purposes of navigation, or supply their places by canals; we must drain our fens, and defend them when drained; we must understand their motions, and their mode of secret, slow, but unceasing action, that our bridges, our wharfs, our dykes, may not become heaps of ruins. Ignorant how to proceed in these daily recurring cases, how often do we see projects of high expectation and heavy expence fail of their object, leaving the state burdened with works not only useless but frequently hurtful?

This has long been a most interesting subject of study in Italy, where the fertility of their fields is not more indebted to their rich soil and happy climate, than to their numerous derivations from the rivers which traverse them: and in Holland and Flanders, where their very existence requires unceasing attention to the waters, which are every moment ready to swallow up the inhabitants; and where the inhabitants, having once subdued this formidable enemy, have made those very waters their indefatigable drudges, transporting through every corner of the country the materials of the most extensive commerce on the face of this globe.

Such having been our incessant occupations with moving waters, we should expect that while the operative artists are continually furnishing facts and experiments, the man of speculative and scientific curiosity, excited by the importance of the subject, would ere now have made considerable progress in the science; and that the professional engineer would be daily acting from established principle, and be seldom disappointed in his expectations. Unfortunately the reverse of this is nearly the true state of the case; each engineer is obliged to collect the greatest part of his knowledge from his own experience, and by many dear-bought lessons, to direct his future operations, in which he still proceeds with anxiety and hesitation: for we have not yet acquired principles of theory, and experiments have not yet been collected and published by which an empirical practice might be safely formed. Many experiments of inestimable value are daily made; but they remain with their authors, who seldom have either leisure, ability, or generosity, to add them to the public stock.

15 This science as yet in its infancy.

The motion of waters has been really so little investigated as yet, that hydraulics may still be called a new study. We have merely skimmed over a few common notions concerning the motions of water; and the mathematicians of the first order seem to have contented themselves with such views as allowed them to entertain themselves with elegant applications of calculus. This, however, has not been their fault. They rarely had any opportunity of doing more, for want of a knowledge of facts. They have made excellent use of the few which have been given them; but it required much labour, great variety of opportunity, and great expence, to learn the multiplicity of things which are combined even in the simplest cases of water in motion. These are seldom the lot of the mathematician; and he is without blame when he enjoys the pleasures within his reach, and cultivates the science of geometry in its most abstracted form. Here he makes a progress which is the boast of human reason, being almost insured from error by the intellectual simplicity of his subject. But when we turn our attention to material objects, and, without knowing either the size and shape of the elementary particles, or the laws which nature has prescribed for their action, presume to foresee their effects, calculate their exertions, direct their actions, what must be the consequence? Nature shows her independence with respect to our notions, and, always faithful to the laws which are enjoined, and of which we are ignorant, she never fails to thwart our views, to disconcert our projects, and render useless all our efforts.

16 Proper mode of investigation.

To wish to know the nature of the elements is vain, and our gross organs are insufficient for the study. To suppose what we do not know, and to fancy shapes and sizes at will; this is to raise phantoms, and will produce a system, but will not prove a foundation for any science. But to interrogate Nature herself, study the laws which she so faithfully observes, catch her, as we say, in the fact, and thus wrest from her the secret; this is the only way to become her master, and it is the only procedure consistent with good sense. And we see, that

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that soon after Kepler detected the laws of the planetary motions, when Galileo discovered the uniform acceleration of gravity, when Paschal discovered the pressure of the atmosphere, and Newton discovered the laws of attraction and the track of a ray of light; astronomy, mechanics, hydrostatics, chemistry, optics, quickly became bodies of sound doctrine; and the deductions from their respective theories were found fair representations of the phenomena of nature. Whenever a man has discovered a law of nature, he has laid the foundation of a science, and he has given us a new mean of subjecting to our service some element hitherto independent: and so long as groups of natural operations follow a route which appears to us whimsical, and will not admit our calculations, we may be assured that we are ignorant of the principle which connects them all, and regulates their procedure.

17 Our ignorance of the general laws of this motion,

This is remarkably the case with several phenomena in the motions of fluids, and particularly in the motion of water in a bed or conduit of any kind. Although the first geniuses of Europe have for this century past turned much of their attention to this subject, we are almost ignorant of the *general laws* which may be observed in their motions. We have been able to select very few points of resemblance, and every case remains nearly an individual. About 150 years ago we discovered, by experience only, the quantity and velocity of water issuing from a small orifice, and, after much labour, have extended this to any orifice; and this is almost the whole of our confidential knowledge. But as to the uniform course of the streams which water the face of the earth, and the maxims which will certainly regulate this agreeably to our wishes, we are in a manner totally ignorant. Who can pretend to say what is the velocity of a river of which you tell him the breadth, the depth, and the declivity? Who can say what swell will be produced in different parts of its course, if a dam or weir of giving dimensions be made in it, or a bridge be thrown across it; or how much its waters will be raised by turning another stream into it, or sunk by taking off a branch to drive a mill? Who can say with confidence what must be the dimensions or slope of this branch, in order to furnish the water that is wanted, or the dimensions and slope of a canal which shall effectually drain a fenny district? Who can say what form will cause or will prevent the undermining of banks, the forming of elbows, the pooling of the bed, or the deposition of sands? Yet these are the most important questions.

18 and the causes of it.

The causes of this ignorance are the want or uncertainty of our principles; the falsity of our only theory, which is belied by experience; and the small number of proper observations or experiments, and difficulty of making such as shall be serviceable. We have, it is true, made a few experiments on the efflux of water from small orifices, and from them we have deduced a sort of theory, dependent on the fall of heavy bodies and the laws of hydrostatic pressure. Hydrostatics is indeed founded on very simple principles, which give a very good account of the laws of the quiescent equilibrium of fluids, in consequence of gravity and perfect fluidity. But by what train of reasoning can we connect these with the phenomena of the uniform motion of the waters of a river or open stream, which can derive its motion only from the slope of its surface, and the modifications of this motion or its velocity only from the width and depth of the stream? These are the only circumstances which can distinguish a portion of a river from a vessel of the same size and shape, in which, however, the water is at rest. In both, gravity is the sole cause of pressure and motion; but there must be some circumstance peculiar to running waters which modifies the exertion of this active principle, and which, when discovered, must be the basis of hydraulics, and must oblige us to reject every theory founded on fancied hypothesis, and which can only lead to absurd conclusions: and surely absurd consequences, when legitimately drawn, are complete evidence of improper principles.

19 Principle on which the systems of hydraulics depend.

When it was discovered experimentally, that the velocities of water issuing from orifices at various depths under the surface were as the square roots of those depths, and the fact was verified by repeated experiments, this principle was immediately and without modification applied to every motion of water. Mariotte, Varignon, Guglielmini, made it the basis of complete systems of hydraulics, which prevail to this day, after having received various amendments and modifications. The same reasoning obtains through them all, though frequently obscured by other circumstances, which are more perspicuously expressed by Guglielmini in his Fundamental Theorems.

Plate CCCCLXII fig. 1.

He considers every point P (fig. 1.) in a mass of fluid as an orifice in the side of a vessel, and conceives the particle as having a tendency to move with the same velocity with which it would issue from the orifice. Therefore, if a vertical line APC be drawn through that point, and if this be made the axis of a parabolic ADE, of which A at the surface of the fluid is the vertex, and AB (four times the height through which a heavy body would fall in a second) is the parameter, the velocity of this particle will be represented by the ordinate PD of this parabola; that is, PD is the space which it would uniformly describe in a second.

20 Theory derived from it. Fig. 2.

From this principle is derived the following theory of running waters.

Let DC (fig. 2.) be the horizontal bottom of a reservoir, to which is joined a sloping channel CK of uniform breadth, and let AB be the surface of the standing water in the reservoir. Suppose the vertical plane BC pierced with an infinity of holes, through each of which the water issues. The velocity of each filament will be that which is acquired by falling from the surface AB *. The filament C, issuing with this velocity, will then glide down the inclined plane like any other heavy body; and (by the common doctrine of the motion down an inclined plane) when it has arrived at F, it will have the same velocity which it would have acquired by falling through the height OF, the point O being in the horizontal plane AB produced. The same may be said of its velocity when it arrives at H or K. The filament immediately above C will also issue with a velocity which is in the subduplicate ratio of its depth, and will then glide down above the first filament. The same may be affirmed of all the filaments; and of the superficial filament, which will occupy the surface of the descending stream.

* See *Guglielmini's Hydraulics*, 21.

21 The consequences drawn from this theory.

From this account of the genesis of a running stream of water, we may fairly draw the following consequences.

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1. The velocity of any particle R, in any part of the stream, is that acquired by falling from the horizontal plane AN.

2. The velocity at the bottom of the stream is everywhere greater than any where above it, and is least of all at the surface.

3. The velocity of the stream increases continually as the stream recedes from its source.

4. The depths EF, GH, &c. in different parts of the stream, will be nearly in the inverse subduplicate ratio of the depths under the surface AN: for since the same quantity of water is running through every section EF and GH, and the channel is supposed of uniform breadth, the depth of each section must be inversely as the velocity of the water passing through it. This velocity is indeed different in different filaments of the section; but the mean velocity in each section is in the subduplicate ratio of the depth of the filament under the surface AB. Therefore the stream becomes more shallow as it recedes from the source; and in consequence of this the difference between LH and MG continually diminishes, and the velocities at the bottom and surface of the stream continually approach to equality, and at a great distance from the source they differ insensibly.

5. If the breadth of the stream be contracted in any part, the depth of the running water will be increased in that part, because the same quantity must still pass through; but the velocity at the bottom will remain the same, and that at the surface will be less than it was before; and the area of the section will be increased on the whole.

6. Should a sluice be put across the stream, dipping a little into the water, the water must immediately rise on the upper side of the sluice till it rises above the level of the reservoir, and the smallest immersion of the sluice will produce this effect. For, by lowering the sluice, the area of the section is diminished, and the velocity cannot be increased till the water heap up to a greater height than the surface of the reservior, and this acquires a pressure which will produce a greater velocity of efflux through the orifice left below the sluice.

7. An additional quantity of water coming into this channel will increase the depth of the stream, and the quantity of water which it conveys; but it will not increase the velocity of the bottom filaments, unless it comes from a higher source.

22 are all contrary to experience.

All these consequences are contrary to experience, and show the imperfection, at least of the explanation.

The third consequence is of all the most contrary to experience. If any one will but take the trouble of following a single brook from its source to the sea, he will find it most rapid in its beginnings among the mountains, gradually slackening its pace as it winds among the hills and gentler declivities, and at last creeping slowly along through the flat grounds, till it is checked and brought to rest by the tides of the ocean.

Nor is the second consequence more agreeable to observation. It is universally found, that the velocity of the surface in the middle of the stream is the greatest of all, and that it gradually diminishes from thence to the bottom and sides.

And the first consequence, if true, would render the running waters on the surface of this earth the instruments of immediate ruin and devastation. If the waters of our rivers, in the cultivated parts of a country, which are two, three, and four hundred feet longer than their sources, ran with the velocity due to that height, they would in a few minutes lay the earth bare to the very bones.

The velocities of our rivers, brooks, and rills, being so greatly inferior to what this theory assigns to them, the other consequences are equally contrary to experience. When a stream has its section diminished by narrowing the channel, the current increases in depth, and this is always accompanied by an increase of velocity through the whole of the section, and most of all at the surface; and the area of the section does not increase, but diminishes, all the phenomena, thus contradicting in every circumstance the deduction from the theory; and when the section has been diminished by a sluice let down into the stream, the water gradually heaps up on the upper side of the sluice, and, by its pressure, produces an acceleration of the stream below the sluice, in the same way as if it were the beginning of a stream, as explained in the theory. The velocity now is composed of the velocity preserved from the source and the velocity produced by this subordinate accumulation; and this accumulation and velocity continually increase till they become such that the whole supply is again discharged through this contracted section: any additional water not only increases the quantity carried along the stream, but also increases the velocity, and therefore the section does not increase in the proportion of the quantity.

23 The theory, however, has been generally followed by the writers on the subject,

It is surprising that a theory really founded on a conceit, and which in every the most familiar and obvious circumstances is contradicted by facts, should have met with so much attention. That Varignon should immediately catch at this notion of Guglielmini, and make it the subject of many elaborate analytical memoirs, is not to be wondered at. This author only wanted *donner prise au calcul;* and it was a usual joke among the academicians of Paris, when any new theorem was invented, *donnons le à Varignon à generaliser.* But his numerous theorems and corollaries were adopted by all, and still make the substance of the present systems of hydraulics. Gravesande, Musehenbroek, and all the elementary treatises of natural philosophy, deliver no other doctrines; and Belidor, who has been considered as the first of all the scientific engineers, details the same theory in his great work the *Architecture Hydraulique.*

24 though some of the more ingenious saw its defects, and attempted to supply them.

Guglielmini was, however, not altogether the dupe of his own ingenuity. He was not only a pretty good mathematician, but an assiduous and sagacious observer. He had applied his theory to some important cases which occurred in the course of his profession as inspector of the rivers and canals in the Milanese, and to the course of the Danube; and could not but perceive that great corrections were necessary for making the theory quadrate in some tolerable manner with observation; and he immediately saw that the motion was greatly obstructed by inequalities of the canal, which gave to the contiguous filaments of the stream transverse motions, which thwarted and confused the regular progress of the rest of the stream, and thus checked its general progress. These obstructions, he observed, were most effectual in the beginning of its course, while yet a small rill, running among stones, and in a very unequal

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unequal bed. The whole stream being small, the inequalities bore a great proportion to it, and thus the general effect was great. He also saw that the same causes (these transverse motions produced by the unequal bottom) chiefly affect the contiguous filaments, and were the reasons why the velocity at the sides and bottom was so much diminished as to be less than the superficial velocity, and that even this might come to be diminished by the same cause. For he observed, that the general stream of a river is frequently composed of a sort of boiling or tumbling motion, by which masses of water are brought up to the surface and again descend. Every person must recollect such appearances in the freshes of a muddy river; and in this way Guglielmini was enabled to account in some measure for the disagreement of his theory with observation.

Marriotte had observed the same obstruction even in the smoothest glass pipes. Here it could not be ascribed to the checks occasioned by transverse motions. He therefore ascribed it to friction, which he supposed to diminish the motion of fluid bodies in the same manner as of solids: and he thence concludes, that the filaments which immediately rub on the sides of the tube have their velocity gradually diminished, and that the filaments immediately adjoining to these, being thus obliged to pass over them or outstrip them, rub upon them and have their own velocity diminished in like manner, but in a smaller degree; and that the succeeding filaments towards the axis of the tube suffer similar but smaller diminutions. By this means the whole stream may come to have a smaller velocity; and at any rate the medium velocity by which the quantity discharged is determined, is smaller than it would have been independent of friction.

Guglielmini adopted this opinion of Mariotte, and in his next work on the Motion of Rivers, considered this as the *chief* cause of the retardation; and he added a third circumstance, which he considered as of no less consequence, the viscidity or tenacity of water. He observes that syrup, oil, and other fluids, where this viscidity is more remarkable, have their motions prodigiously retarded by it, and supposes that water differs from them only in the degree in which it possesses this quality; and he says, that by this means not only the particles which are moving more rapidly have their motions diminished by those in their neighbourhood which move slower, but that the filaments also which would have moved more slowly are accelerated by their more active neighbours; and that in this manner the superficial and inferior velocities are brought nearer to an equality. But this will never account for the universal fact, that the superficial particles are the swiftest of all. The superficial particles, says he, acquire by this means a greater velocity than the parabolic law allows them; the medium velocity is often in the middle of the depth; the numerous obstacles continually multiplied and repeated, cause the current to lose the velocity acquired by the fall; the slope of the bottom then diminishes, and often becomes very small, so that the force remaining is hardly able to overcome the obstacles which are still repeated, and the river is reduced almost to a state of stagnation. He observes, that the Rheno, a river of the Milanese, has near its mouth a slope of no more than 5″, which he considers as quite inadequate to the task; and here he introduces another principle, which he considers as an essential part of the theory of open currents. This is, that there arises from the very depth of the stream a propelling force which restores a part of the lost velocity. He offers nothing in proof of this principle, but uses it to account for and explain the motion of water in horizontal canals. The principle has been adopted by the numerous Italian writers on hydraulics, and, by various contrivances, interwoven with the parabolic theory, as it is called, of Guglielmini. Our readers may see it in various modifications in the *Idrostatica e Idraulica* of P. Lecchi, and in the *Sperienze Idrauliche* of Michelotti. It is by no means distinct either in its origin or in the manner of its application to the explanation of phenomena, and seems only to serve for giving something like consistency to the vague and obscure discussions which have been published on this subject in Italy. We have already remarked, that in that country the subject is particularly interesting, and has been much commented upon. But the writers of England, France, and Germany, have not paid so much attention to it, and have more generally occupied themselves with the motion of water in close conduits, which seem to admit of a more precise application of mathematical reasoning.

25 Sir Isaac Newton's Observations on this subject.

Some of those have considered with more attention the effects of friction and viscidity. Sir Isaac Newton, with his usual penetration, had seen distinctly the manner in which it behoved these circumstances to operate. He had occasion, in his researches into the mechanism of the celestial motions, to examine the famous hypothesis of Descartes, that the planets were carried round the sun by fluid vortices, and saw that there would be no end to uncertainty and dispute till the *modus operandi* of these vortices were mechanically considered. He therefore employed himself in the investigation of the manner in which the acknowledged powers of natural bodies, acting according to the received laws of mechanics, could produce and preserve these vortices, and restore that motion which was expended in carrying the planets round the sun. He therefore, in the second book of the Principles of Natural Philosophy, gives a series of beautiful propositions, viz. 51, 52, &c. with their corollaries, showing how the rotation of a cylinder or sphere round its axis in the midst of a fluid will excite a vortical motion in this fluid; and he ascertains with mathematical precision the motion of every filament of this vortex.

He sets out from the supposition that this motion is excited in the surrounding stratum of fluid in consequence of a want of perfect lubricity, and assumes as an hypothesis, that the initial resistance (or diminution of the motion of the cylinder) which arises from this want of lubricity, is proportional to the velocity with which the surface of the cylinder is separated from the contiguous surface of the surrounding fluid, and that the whole resistance is proportinal to the velocity with which the parts of the fluid are mutually separated from each other. From this, and the equality of action and reaction, it evidently follows, that the velocity of any stratum of the vortex is the arithmetical medium between the velocities of the strata immediately within and without it. For the intermediate stratum cannot be in equilibrio, unless it is as much pressed forward by the

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the superior motion of the stratum within it, as it is kept back by the slower motion of the stratum without it.

This beautiful investigation applies in the most perfect manner to every change produced in the motion of a fluid filament, in consequence of the viscidity and friction of the adjoining filaments; and a filament proceeding along a tube at some small distance from the sides has, in like manner, a velocity which is the medium between those of the filaments immediately surrounding it. It is therefore a problem of no very difficult solution to assign the law by which the velocity will gradually diminish as the filament recedes from the axis of a cylindrical tube. It is somewhat surprising that so neat a problem has never occupied the attention of the mathematicians during the time that these subjects were so assiduously studied; but so it is, that nothing precise has been published on the subject. The only approach to a discussion of this kind, is a Memoir of Mr Pitot, read to the academy of Paris in 1726, where he considers the velocity of efflux through a pipe. Here, by attending to the comparative superiority of the *quantity of motion* in large pipes, he affirms, that the total diminutions arising from friction will be (*cæteris paribus*) in the inverse ratio of the diameters. This was thankfully received by other writers, and is now a part of our hydraulic theories. It has not, however, been attended to by those who write on the motion of rivers, though it is evident that it is applicable to these with equal propriety; and had it been introduced, it would at once have solved all their difficulties, and particularly would have shown how an almost imperceptible declivity would produce the gentle motion of a great river, without having recourse to the unintelligible principle of Guglielmini.

Mr Couplet made some experiments on the motion of the water in the great main pipes of Versailles, in order to obtain some notions of the retardations occasioned by friction. They were found prodigious: but were so irregular, and unsusceptible of reduction to any general principle, (and the experiments were indeed so few that they were unfit for this reduction), that he could establish no theory.—What Mr Belidor established on them, and makes a sort of system to direct future engineers, is quite unworthy of attention.

Upon the whole, this branch of hydraulics, although of much greater practical importance than the conduct of water in pipes, has never yet obtained more than a vague, and, we may call it, slovenly attention from the mathematicians; and we ascribe it to their not having taken the pains to settle its first principles with the same precision as had been done in the other branch. They were, from the beginning, satisfied with a sort of applicability of mathematical principles, without ever making the application. Were it not that some would accuse us of national partiality, we would ascribe it to this, that Newton had not pointed out the way in this as in the other branch. For any intelligent reader of the performances on the motions of fluids in close vessels, will see that there has not a principle, nay hardly a step of investigation, been added to those which were used or pointed out by Sir Isaac Newton. He has nowhere touched this question, the motion of water in an open canal. In his theories of the tides, and of the propagation of waves, he had an excellent opportunity for giving at once the fundamental principles of motion in a free fluid whose surface was not horizontal. But, by means of some of those happy and shrewd guesses, in which, as Daniel Bernoulli says he excelled all men, he saw the undoubted consequences of some palpable phenomenon which would answer all his present purposes, and therefore entered no farther into the investigation.

26 Scarce at all improved since his time.

The original theory of Guglielmini, or the principle adopted by him, that each particle of the vertical section of a running stream has a tendency to move as if it were issuing from an orifice at that depth under the surface, is false; and that it really does so in the face of a dam when the flood-gate is taken away, is no less so; and if it did, the subsequent motions would hardly have any resemblance to those which he assigns them. Were this the case, the exterior form of the cascade would be something like what is sketched in fig. 3. with an abrupt angle at B, and a concave surface BEG. This will be evident to every one who combines the greater velocity of the lower filaments with the slower motion of those which must slide down above them. But this greater advance of the lower filaments cannot take place without an expenditure of the water under the surface AB. The surface therefore sinks, and B instantly ceases to retain its place in the horizontal plane. The water does not successively flow forward from A to B, and then tumble over the precipice; but immediately upon opening the flood-gate, the water wastes from the space immediately behind it, and the whole puts on the form represented in fig. 4. consisting of the curve A *a* P *c* EG, convex from A to *c*, and concave from thence forward. The superficial water begins to accelerate all the way from A; and the particles may be supposed (for the present) to have acquired the velocity corresponding to their depth under the horizontal surface. This must be understood as nothing more than a vague sketch of the motions. It requires a very critical and intricate investigation to determine either the form of the upper curve or the motions of the different filaments. The place A, where the curvature begins, is of equally difficult determination, and is various according to the differences of depth and of inclination of the succeeding canal.

Fig. 3.

Fig. 4.

27 Uncertainty of the theories when applied to practice exemplified.

We have given this sort of history of the progress which had been made in this part of hydraulics, that our readers might form some opinion of the many dissertations which have been written on the motion of rivers, and of the state of the arts depending on it. Much of the business of the civil engineer is intimately connected with it: and we may therefore believe, that since there was so little principle in the theories, there could be but very little certainty in the practical operations. The fact has been, that no engineer could pretend to say, with any precision, what would be the effect of his operations. One whose business had given him many opportunities, and who kept accurate and judicious registers of his own works, could pronounce, with some probability, how much water would be brought off by a drain of certain dimensions and a given slope, when the circumstances of the case happened to tally with some former work in which he had succeeded or failed; but out of the pale of his own experience he could only make a sagacious guess. A remarkable instance of this occurred not long ago. A small aqueduct was lately carried into Paris.

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Paris. It had been conducted on a plan presented to the academy, who had corrected it, and gave a report of what its performance would be. When executed in the most accurate manner, it was deficient in the proportion of five to nine. When the celebrated Desaguliers was employed by the city of Edinburgh to superintend the bringing in the water for the supply of the city, he gave a report on the plan which was to be followed. It was executed to his complete satisfaction; and the quantity of water delivered was about one-sixth of the quantity which he promised, and about one-eleventh of the quantity which the no less celebrated M'Laurin calculated from the same plan.

28 Necessity of multiplying experiments.

Such being the state of our theoretical knowledge (if it can be called by this name), naturalists began to be persuaded that it was but losing time to make any use of a theory so incongruous with observation, and that the only safe method of proceeding was to multiply experiments in every variety of circumstances, and to make a series of experiments in every important case, which should comprehend all the practical modifications of that case. Perhaps circumstances of resemblance might occur, which would enable us to connect many of them together, and at last discover the principles which occasioned this connection; by which means a theory founded on science might be obtained. And if this point should not be gained, we might perhaps find a few general facts, which are modified in all these particular cases, in such a manner that we can still trace the general facts, and see the part of the particular case which depends on it. This would be the acquisition of what may be called an empirical theory, by which every phenomenon would be explained, in so far as the explanation of a phenomenon is nothing more than the pointing out the general fact or law under which it is comprehended; and this theory would answer every practical purpose, because we should confidently foresee what consequences would result from such and such premises; or if we should fail even in this, we should still have a series of experiments so comprehensive, that we could tell what place in the series would correspond to any particular case which might be proposed.

29 Labours of Michelotti and Bossut in this way,

There are two gentlemen, whose labours in this respect deserve very particular notice, Professor Michelotti at Turin, and Abbé Bossut at Paris. The first made a prodigious number of experiments both on the motion of water through pipes and in open canals. They were performed at the expence of the sovereign, and no expence was spared. A tower was built of the finest masonry, to serve as a vessel from which the water was to issue through holes of various sizes, under pressures from 5 to 22 feet. The water was received into basons constructed of masonry and nicely lined with stucco, from whence it was conveyed in canals of brick-work lined with stucco, and of various forms and declivities. The experiments on the expence of water through pipes are of all that have yet been made the most numerous and exact, and may be appealed to on every occasion. Those made in open canals are still more numerous, and are no doubt equally accurate; but they have not been so contrived as to be so generally useful, being in general very unlike the important cases which will occur in practice, and they seem to have been contrived chiefly with the view of establishing or overturning certain points of hydraulic doctrine which were probably prevalent at the time among the practical hydraulists.

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The experiments of Bossut are also of both kinds; and though on a much smaller scale than those of Michelotti, seem to deserve equal confidence. As far as they follow the same tract, they perfectly coincide in their results, which should procure confidence in the other; and they are made in situations much more analogous to the usual practical cases. This makes them doubly valuable. They are to be found in his two volumes intitled *Hydrodynamique*. He has opened this path of procedure in a manner so new and so judicious, that he has in some measure the merit of such as shall follow him in the same path.

30 and the progressive experiments of De Buat.

This has been most candidly and liberally allowed him by the chevalier de Buat, who has taken up this matter where the abbé Bossut left it, and has prosecuted his experiments with great assiduity; and we must now add with singular success. By a very judicious consideration of the subject, he hit on a particular view of it, which saved him the trouble of a minute consideration of the small internal motions, and enabled him to proceed from a very general and evident proposition, which may be received as the key to a complete system of practical hydraulics. We shall follow this ingenious author in what we have farther to say on the subject; and we doubt not but that our readers will think we do a service to the public by making these discussions of the chevalier de Buat more generally known in this country. It must not however be expected that we shall give more than a synoptical view of them, connected by such familiar reasoning as shall be either comprehended or confided in by persons not deeply versed in mathematical science.

Sect. I. *Theory of Rivers.*

31 His leading proposition.

It is certain that the motion of open streams must, in some respects, resemble that of bodies sliding down inclined planes perfectly polished; and that they would accelerate continually, were they not obstructed: but they are obstructed, and frequently move uniformly. This can only arise from an equilibrium between the forces which promote their descent and those which oppose it. Mr Buat, therefore, assumes the leading proposition, that,

When water flows uniformly on any channel or bed, the accelerating force which obliges it to move is equal to the sum of all the resistances which it meets with, whether arising from its own viscidity, or from the friction of its bed.

This law is as old as the formation of rivers, and should be the key of hydraulic science. Its evidence is clear; and it is, at any rate, the basis of all uniform motion. And since it is so, there must be some considerable analogy between the motion in pipes and in open channels. Both owe their origin to an inequality of pressure, both would accelerate continually, if nothing hindered; and both are reduced to uniformity by the viscidity of the fluid and the friction of the channel.

32 The subject of the following discussion proposed.

It will therefore be convenient to examine the phenomena of water moving in pipes by the action of its weight only along the sloping channel. But previous to this, we must take some notice of the obstruction to the entry of water into a channel of any kind, arising from the deflection

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deflection of the many different filaments which press into the channel from the reservoir from every side. Then we shall be able to separate this diminution of motion from the sum total that is observed, and ascertain what part remains as produced by the subsequent obstructions.

We then shall consider the principle of uniform motion, the equilibrium between the power and the resistance. The power is the relative height of the column of fluid which tends to move along the inclined plane of its bed; the resistance is the friction of the bed, the viscidity of the fluid, and its adhesion to the sides. Here are necessarily combined a number of circumstances which must be gradually detached that we may see the effect of each, viz. the extent of the bed, its perimeter, and its slope. By examining the effects produced by variations of each of these separately, we discover what share each has in the general effect; and having thus analysed the complicated phenomena, we shall be able to combine those its elements, and frame a formula which shall comprehend every circumstance, from the greatest velocity to the extinction of all motion, and from the extent of a river to the narrow dimensions of a quill. We shall compare this formula with a series of experiments in all this variety of circumstances, partly made by Mr Buat, and partly collected from other authors; and we shall leave the reader to judge of the agreement.

Confident that this agreement will be found most satisfactory, we shall then proceed to consider very cursorily the chief varieties which nature or art may introduce into these beds, the different velocities of the same stream, the intensity of the resistance produced by the inertia of the materials of the channel, and the force of the current by which it continually acts on this channel, tending to change either its dimensions or its form. We shall endeavour to trace the origin of these great rivers which spread like the branches of a vigorous tree, and occupy the surface even of a vast continent. We shall follow them in their course, unfold all their windings, study their train and regimen, and point out the law of its stability; and we shall investigate the causes of their deviations and wanderings.

The study of these natural laws pleases the mind: but it answers a still greater purpose; it enables us to assist nature, and to hasten her operations, which our wants and our impatience often find too slow. It enables us to command the elements, and to force them to administer to our wants and our pleasures.

We shall therefore, in the next place, apply the knowledge which we may acquire to the solution of the most important hydraulic questions which occur in the practice of the civil engineer.

We shall consider the effects produced by a permanent addition to any river or stream by the union of another, and the opposite effect produced by any draught or offset, showing the elevation or depression produced up the stream, and the change made in the depth and velocity below the addition or offset.

We shall pay a similar attention to the temporary swells produced by freshes.

We shall ascertain the effects of straightening the course of a stream, which, by increasing its slope, must increase its velocity, and therefore sink the waters above the place where the curvature was removed, and diminish the tendency to overflow, while the same immediate consequence must expose the places farther down to the risk of floods from which they would otherwise have been free.

The effects of dams or weirs, and of bars, must then be considered; the gorge or swell which they produce up the stream must be determined for every distance from the weir or bar. This will furnish us with rules for rendering navigable or floatable such waters as have too little depth or too great slope. And it will appear that immense advantages may be thus derived, with a moderate expence, even from trifling brooks, if we will relinquish all prejudices, and not imagine that such conveyance is impossible, because it cannot be carried on by such boats and small craft as we have been accustomed to look at.

The effects of canals of derivation, the rules or maxims of draining, and the general maxims of embankment, come in the next place; and our discussions will conclude with remarks on the most proper forms for the entry to canals, locks, docks, harbours, and mouths of rivers, the best shape for the startlings of bridges and of boats for inland navigation, and such like subordinate but interesting particulars, which will be suggested by the general thread of discussion.

33 Natural velocity, expence and discharge through small orifices.

It is considered, as physically demonstrated (see HYDRODYNAMICS), that water issuing from a small orifice in the bottom or side of a very large vessel, almost instantly acquires and maintains the velocity which a heavy body would acquire by falling to the orifice from the horizontal surface of the stagnant water. This we shall call its NATURAL VELOCITY. Therefore, if we multiply the area of the orifice by this velocity, the product will be the bulk or quantity of the water which is discharged. This we may call the NATURAL EXPENCE of water, or the NATURAL DISCHARGE.

Let O represent the area or section of the orifice expressed in some known measure, and h its depth under the surface. Let g express the velocity acquired by a heavy body during a second by falling. Let V be the medium velocity of the water's motion, Q the quantity of water discharged during a second, and N the natural expence.

We know that V is equal to $\sqrt{2g} \times \sqrt{h}$. Therefore $N = O. \sqrt{2g} \sqrt{h}$.

If these dimensions be all taken in English feet, we have $\sqrt{2g}$ very nearly equal to 8; and therefore $V = 8 \sqrt{h}$, and $N = O\ 8 \sqrt{h}$.

But in our present business it is much more convenient to measure every thing by inches. Therefore since a body acquires the velocity of 32 feet 2 inches in a second, we have $2g = 64$ feet 4 inches or 772 inches, and $\sqrt{2g} = 27.78$ inches, nearly $27\frac{3}{4}$ inches.

Therefore $V = \sqrt{772} \sqrt{h}, = 27.78 \sqrt{h}$, and $N = O. \sqrt{772} \sqrt{h}, = O.\ 27.78 \sqrt{h}$.

But it is also well known, that if we were to calculate the expence or discharge for every orifice by this simple rule, we should in every instance find it much greater than nature really gives us.

When water issues through a hole in a thin plate the lateral columns, pressing into the hole from all sides, cause the issuing filaments to converge to the axis of the jet, and contract its dimensions at a little distance from the hole. And it is in this place of greatest contraction

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traction that the water acquires that velocity which we observe in our experiments, and which we assume as equal to that acquired by falling from the surface. Therefore, that our computed discharge may best agree with observation, it must be calculated on the supposition that the orifice is diminished to the size of this smallest section. But the contraction is subject to variations, and the dimensions of this smallest section are at all times difficult to ascertain with precision. It is therefore much more convenient to compute from the real dimensions of the orifice, and to correct this computed discharge, by means of an actual comparison of the computed and effective discharges in a series of experiments made in situations resembling those cases which most frequently occur in practice. This correction or its cause, in the mechanism of those internal motions, is generally called CONTRACTION by the writers on hydraulics; and it is not confined to a hole in a thin plate: it happens in some degree in all cases where fluids are made to pass through narrow places. It happens in the entry into all pipes, canals, and sluices; nay even in the passage of water over the edge of a board, such as is usually set up on the head of a dam or weir, and even when this is immersed in water on both sides, as in a bar or keep, frequently employed for raising the waters of the level streams in Flanders, in order to render them navigable. We mentioned an observation * of Mr Buat to this effect, when he saw a gooseberry rise up from the bottom of the canal along the face of the bar, and then rapidly fly over its top. We have attempted to represent this motion of the filaments in these different situations.

34 Contraction.

* See *Resistance of Fluids*, N° 67.

35 Motion of filaments in various particular situations, Fig. 5.

Fig. 5. A shows the motion through a thin plate.

B shows the motion when a tube of about two diameters long is added, and when the water flows with a full mouth. This does not always happen in so short a pipe (and never in one that is shorter), but the water frequently detaches itself from the sides of the pipe, and flows with a contracted jet.

C shows the motion when the pipe projects into the inside of the vessel. In this case it is difficult to make it flow full.

D represents a mouth-piece fitted to the hole, and formed agreeably to that shape which a jet would assume of itself. In this case all contraction is avoided, because the mouth of this pipe may be considered as the real orifice, and nothing now diminishes the discharge but a trifling friction of the sides.

E shows the motion of water over a dam or weir, where the fall is free or unobstructed; the surface of the lower stream being lower than the edge or sole of the waste-board.

F is a similar representation of the motion of water over what we would call a *bar* or *keep*.

36 and the effects of contraction determined.

It was one great aim of the experiments of Michelotti and Bossut to determine the effects of contraction in these cases. Michelotti, after carefully observing the form and dimensions of the natural jet, made various mouth-pieces resembling it, till he obtained one which produced the smallest diminution of the computed discharge, or till the discharge computed for the area of its smaller end approached the nearest to the effective discharge. And he at last obtained one which gave a discharge of 983, when the natural discharge would have been 1000. This piece was formed by the revolution of a trochoid round the axis of the jet, and the dimensions were as follow:

Diameter of the outer orifice	= 36
——————inner orifice	= 46
Length of the axis	= 96

The results of the experiments of the Abbé Bossut and of Michelotti scarcely differ, and they are expressed in the following table:

N or the natural expence	10000	$= 0.27.78\sqrt{h}$
Q for the thin plate fig. A almost at the surface	6526	$0.18.13\sqrt{h}$
Q for ditto at the depth of 8 feet	6195	$0.17.21\sqrt{h}$
Q for ditto at the depth of 16 feet	6173	$0.17.15\sqrt{h}$
Q for a tube 2 diameters long, fig. B.	8125	$0.22.57\sqrt{h}$
Q for ditto projecting inwards and flowing full	6814	$0.18.93\sqrt{h}$
Q for ditto with a contracted jet, fig. C.	5137	$0.14.27\sqrt{h}$
Q for the mouth-piece, fig. D.	9831	$0.27.31\sqrt{h}$
Q for a weir, fig. E.	95[illegible]6	$0.26.49\sqrt{h}$
Q for a bar, fig. F.	9730	$0.27.03\sqrt{h}$

The numbers in the last column of this little table are the cubical inches of water discharged in a second when the height h is one inch.

It must be observed that the discharges assigned here for the weir and bar relate only to the contractions occasioned by the passage over the edge of the board. The weir may also suffer a diminution by the contractions at its two ends, if it should be narrower than the stream, which is generally the case, because the two ends are commonly of square masonry or wood-work. The contraction there is nearly the same with that at the edge of a thin plate. But this could not be introduced into this table, because its effect on the expence is the same in quantity whatever is the length of the waste-board of the weir.

37 Diminution of discharge through a sluice, &c.

In like manner, the diminution of discharge through a sluice could not be expressed here. When a sluice is drawn up, but its lower edge still remains under water, the discharge is contracted both above and at the sides, and the diminution of discharge by each is in proportion to its extent. It is not easy to reduce either of these contractions to computation, but they may be very easily observed. We frequently can observe the water, at coming out of a sluice into a mill course, quit the edge of the aperture, and show a part of the bottom quite dry. This is always the case when the velocity of efflux is considerable. When it is very moderate, this place is occupied by an eddy water almost stagnant. When the head of water is 8 or 10 inches, and runs off freely, the space left between it and the sides is about 1½ inches. If the sides of the entry have a slope, this void space can never appear; but there is always this tendency to convergence, which diminishes the quantity of the discharge.

It will frequently abridge computation very much to consider the water discharged in these different situations as moving with a common velocity, which we conceive as produced not by a fall from the surface of the fluid (which is exact only when the expence is equal to the natural expence), but by a fall h accommodated to the discharge:

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charge: or it is convenient to know the height which would produce that very velocity which the water issues with in these situations.

And also, when the water is observed to be actually moving with a velocity V, and we know whether it is coming through a thin plate, through a tube, over a dam, &c. it is necessary to know the pressure or HEAD OF WATER h which has actually produced this velocity. It is convenient therefore to have the following numbers in readiness.

h for the natural expence $= \frac{V^2}{772}$

h for a thin plate - $= \frac{V^2}{296}$

h for a tube 2 diam. long $= \frac{V^2}{505}$

h for a dam or weir - $= \frac{V^2}{726}$

h for a bar - - $= \frac{V^2}{746}$

It was necessary to premise these FACTS in hydraulics, that we may be able in every case to distinguish between the force expended in the entry of the water into the conduit or canal, and the force employed in overcoming the resistances along the canal, and in preserving or accelerating its motion in it.

38 The motion of rivers depends on the slope of the surface.

The motion of running water is produced by two causes: 1. The action of gravity; and, 2. The mobility of the particles, which makes them assume a level in confined vessels, or determines them to move to that side where there is a defect of pressure. When the surface is level, every particle is at rest, being equally pressed in all directions; but if the surface is not level, not only does a particle on the very surface tend by its own weight towards the lower side, as a body would slide along an inclined plane, but there is a force, external to itself, arising from a superiority of pressure on the upper end of the surface, which pushes this superficial particle towards the lower end; and this is not peculiar to the superficial particles, but affects every particle within the mass of water. In the vessel ACDE (fig. 6.), containing water with an inclined surface AE, if we suppose all frozen but the extreme columns AKHB, FGLE, and a connecting portion HKCDLG, it is evident, from hydrostatical laws, that the water on this connecting part will be pushed in the direction CD; and if the frozen mass BHGF were moveable it would also be pushed along. Giving it fluidity will make no change in this respect; and it is indifferent what is the situation and shape of the connecting column or columns. The propelling force (MNF being horizontal) is the weight of the column AMNB. The same thing will obtain wherever we select the vertical columns. There will always be a force tending to push every particle of water in the direction of the declivity. The consequence will be, that the water will sink at one end and rise at the other, and its surface will rest in the horizontal position a O e, cutting the former in its middle O. This cannot be unless there be not only a motion of perpendicular descent and ascent of the vertical columns, but also a real motion of translation from K towards L. It perhaps exceeds our mathematical skill to tell what will be the motion of each particle. Newton did not attempt it in his investigation of the motion of waves, nor is it at all necessary here. We may, however, acquire a very distinct notion of its general effect. Let OPQ be a vertical plane passing through the middle point O. It is evident that every particle in PQ, such as P, is pressed in the direction QD, with a force equal to the weight of a single row of particles whose length is the difference between the columns BH and FG. The force acting on the particle Q is, in like manner, the weight of a row of particles $=$AC$-$ED. Now if OQ, OA, OE, be divided in the same ratio, so that all the figures ACDE, BHGF, &c. may be similar, we see that the force arising solely from the declivity, and acting on each particle on the plane OQ, is proportional to its depth under the surface, and that the row of particles ACQDE, BHPGF, &c. which is to be moved by it, is in the same proportion. Hence it unquestionably follows, that the accelerating force on each particle of the row is the same in all. Therefore the whole plane OQ tends to advance forward together with the same velocity; and in the instant immediately succeeding, all these particles would be found again in a vertical plane indefinitely nearer to OQ; and if we sum up the forces, we shall find them the same as if OQ were the opening of a sluice, having the water on the side of D standing level with O, and the water on the other side standing at the height AC. This result is extremely different from that of the hasty theory of Guglielmini. He considers each particle in OQ as urged by an accelerating force proportional to its depth, it is true; but he makes it *equal* to the weight of the row OP, and never recollects that the greatest part of it is balanced by an opposite pressure, nor perceives that the force which is not balanced must be distributed among a row of particles which varies in the same proportion with itself. When these two circumstances are neglected, the result will be incompatible with observation. When the balanced forces are taken into the account of pressure, it is evident that the surface may be supposed horizontal, and that motion should obtain in this case as well as in the case of a sloping surface: and indeed this is Guglielmini's professed theory, and what he highly values himself on. He announces this discovery of a new principle, which he calls the energy of deep waters, as an important addition to hydraulics. It is owing to this, says he, that the great rivers are not stagnant at their mouths, where they have no perceptible declivity of surface, but, on the contrary, have greater energy and velocity than farther up, where they are shallower. This principle is the basis of his improved theory of rivers, and is insisted on at great length by all the subsequent writers. Buffon, in his theory of the earth, makes much use of it. We cannot but wonder that it has been allowed a place in the theory of rivers given in the great *Encyclopédie* of Paris, and in an article having the signature (O) of D'Alembert. We have been very anxious to show the falsity of this principle, because we consider it as a mere subterfuge of Guglielmini, by which he was able to patch up the mathematical theory which he had so hastily taken from Newton or Galileo; and we think that we have secured our readers from being misled by it, when we show that this energy must be equally operative when the surface is on a dead level. The absurdity of this is evident. We shall see by and bye, that deep waters, when in

Fig. 6.

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in actual motion, have an energy not to be found in shallow running waters, by which they are enabled to continue that motion: but this is not a moving principle; and it will be fully explained, as an immediate result of principles, not vaguely conceived and indistinctly expressed, like this of Guglielmini, but easily understood, and appreciable with the greatest precision. It is an energy common to all great bodies. Although they lose as much momentum in surmounting any obstacle as small ones, they lose but a small portion of their velocity. At present, employed only in considering the progressive motion of an open stream, whose surface is not level, it is quite enough that we see that such a motion must obtain, and that we see that there are propelling forces; and that those forces arise *solely* from the want of a level surface, or from the slope of the surface; and that, with respect to any one particle, the force acting on it is proportional to the difference of level between each of the two columns (one on each side of the particle) which produce it. Were the surface level, there would be no motion; if it is not level, there will be motion; and this motion will be proportional to the want of level or the declivity of the surface: it is of no consequence whether the bottom be level or not, or what is its shape.

Hence we draw a fundamental principle, that the *motion of rivers depends entirely on the slope of the surface.*

The SLOPE or declivity of any inclined plane is not properly expressed by the difference of height alone of its extremities; we must also consider its length: and the measure of the slope must be such that it may be the same while the declivity is the same. It must therefore be the same over the whole of any one inclined plane. We shall answer these conditions exactly, if we take for the measure of a slope the fraction which expresses the elevation of one extremity above the other divided by the length of the plane. Thus $\frac{AM}{AF}$ will express the declivity of the plane AF.

39 When it is uniform the resistance is equal to the accelerating force.

If the water met with no resistance from the bed in which it runs, if it had no adhesion to its sides and bottom, and if its fluidity were perfect, its gravity would accelerate its course continually, and the earth and its inhabitants would be deprived of all the advantages which they derive from its numberless streams. They would run off so quickly, that our fields, dried up as soon as watered, would be barren and useless. No soil could resist the impetuosity of the torrents; and their accelerating force would render them a destroying scourge, were it not that, by kind Providence, the resistance of the bed, and the viscidity of the fluid, become a check which reins them in and sets bounds to their rapidity. In this manner the friction on the sides, which, by the viscidity of the water, is communicated to the whole mass, and the very adhesion of the particles to each other, and to the sides of the channel, are the causes which make the resistances bear a relation to the velocity; so that the resistances augmenting with the velocities, come at last to balance the accelerating force. Then the velocity now acquired is preserved, and the motion becomes uniform, without being able to acquire new increase, unless some change succeeds either in the slope or in the capacity of the channel. Hence arises the second maxim in the motion of rivers, that *when a stream moves uniformly, the resistance is equal to the accelerating force.*

As in the efflux of water through orifices, we pass over the very beginnings of the accelerated motion, which is a matter of speculative curiosity, and consider the motion in a state of permanency, depending on the head of water, the area of the orifice, the velocity, and the expence; so, in the theory of the uniform motion of rivers, we consider the slope, the transverse section or area of the stream, the uniform velocity, and the expence. It will be convenient to affix precise meanings to the terms which we shall employ.

40 Terms precisely explained.

The SECTION of a stream is the area of a plane perpendicular to the direction of the general motion.

The resistances arise ultimately from the action of the water on the internal surface of the channel, and must be proportional *(cæteris paribus)* to the extent of the action. Therefore if we unfold the whole edge of this section, which is rubbed as it were by the passing water, we shall have a measure of the extent of this action. In a pipe, circular or prismatical, the whole circumference is acted on; but in a river or canal ACDQ (fig. 6.) the horizontal line *a* O *e*, which makes the upper boundary of the section *a* CD *e*, is free from all action. The action is confined to the three lines *a* C, C D, D *e*. We shall call this line *a* CD *e* the BORDER of the section.

The MEAN VELOCITY is that with which the whole section, moving equally, would generate a solid equal to the expence of the stream. This velocity is to be found perhaps but in one filament of the stream, and we do not know in which filament it is to be found.

Since we are attempting to establish an empirical theory of the motion of rivers, founded entirely on experiments and palpable deductions from them; and since it is extremely difficult to make experiments on open streams which shall have a precision sufficient for such an important purpose—it would be a most desirable thing to demonstrate an exact analogy between the mutual balancing of the acceleration and resistance in pipes and in rivers; for in those we can not only make experiments with all the desired accuracy, and admitting precise measures, but we can make them in a number of cases that are almost impracticable in rivers. We can increase the slope of a pipe from nothing to the vertical position, and we can employ every desired degree of pressure, so as to ascertain its effect on the velocity in degrees which open streams will not admit. The Chevalier de Buat has most happily succeeded in this demonstration; and it is here that his good fortune and his penetration have done so much service to practical science.

41 The acceleration and resistance of water in an horizontal tube, Fig. 7.

Let AB (fig. 7.) be a horizontal tube, through which the water is impelled by the pressure or HEAD DA. This head is the moving power; and it may be conceived as consisting of two parts, performing two distinct offices. One of them is employed in impressing on the water that velocity with which it *actually moves* in the tube. Were there no obstructions to this motion, no greater head would be wanted; but there are obstructions arising from friction, adhesion, and viscidity. This requires force. Let this be the office of the rest of the head of water in the reservoir. There is but one allotment, appropriation, or repartition, of the whole head which will answer. Suppose E to be the

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the point of partition, so that DE is the head necessary for impressing the actual velocity on the water (a head or pressure which has a relation to the form or circumstance of the entry, and the contraction which takes place there). The rest EA is wholly employed in overcoming the simultaneous resistances which take place along the whole tube AB, and is in equilibrio with this resistance. Therefore if we apply at E a tube EC of the same length and diameter with AB, and having the same degree of polish or roughness; and if this tube be inclined in such a manner that the axis of its extremity may coincide with the axis of AB in the point C— we affirm that the velocity will be the same in both pipes, and that they will have the same expence; for the moving force in the sloping pipe EC is composed of the whole weight of the column DE and the relative weight of the column EC: but this relative weight, by which alone it descends along the inclined pipe EC, is precisely equal to the weight of a vertical column EA of the same diameter. Every thing therefore is equal in the two pipes, viz. the lengths, the diameters, the moving forces, and the resistances; therefore the velocities and discharges will also be equal.

This is not only the case on the whole, but also in every part of it. The relative weight of any part of it EK is precisely in equilibrio with the resistances along that part of the pipe; for it has the same proportion to the whole relative weight that the resistance has to the whole resistance. Therefore *(and this is the most important circumstance, and the basis of the whole theory)* the pipe EC may be cut shorter, or may be lengthened to infinity, without making any change in the velocity or expence, so long as the propelling head DE remains the same.

Leaving the whole head DA, as it is, if we lengthen the horizontal pipe AB to G, it is evident that we increase the resistance without any addition of force to overcome it. The velocity must therefore be diminished; and it will now be a velocity which is produced by a smaller head than DE: therefore if we were to put in a pipe of equal length at E, terminating in the horizontal line AG, the water will not run equally in both pipes. In order that it may, we must discover the diminished velocity with which the water now actually runs along AG, and we must make a head DI capable of impressing this velocity at the entry of the pipe, and then insert at I a pipe IH of the same length with AG. The expence and velocity of both pipes will now be the same (A).

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42 or in an inclined pipe. Fig. 8.

What has now been said of a horizontal pipe AB would have been equally true of any inclined pipe AB A′B (fig. 8). Drawing the horizontal line CB, we see that DC is the whole head or propelling pressure for either pipe AB or A′B; and if DE is the head necessary for the actual velocity, EC is the head necessary for balancing the resistances; and the pipe EF of the same length with AB, and terminating in the same horizontal line, will have the same velocity: and its inclination being thus determined, it will have the same velocity and expence whatever be its length.

43 Analogy between these pipes and rivers demonstrated by De Buat.

Thus we see that the motion in any pipe, horizontal or sloping, may be referred to or substituted for the motion in another inclined pipe, whose head of water, above the place of entry, is that productive of the actual velocity of the water in the pipe. Now, in this case, the accelerating force is equal to the resistance: we may therefore consider this last pipe as a river, of which the bed and the slope are uniform or constant, and the current in a state of permanency; and we now may clearly draw this important conclusion, that pipes and open streams, when in a state of permanency, perfectly resemble each other in the circumstances which are the immediate causes of this permanency. The equilibrium between the accelerating force obtains not only in general, but takes place through the whole length of the pipe or stream, and is predicable of every individual transverse section of either. To make this more palpably evident, if possible, let us consider a sloping cylindrical pipe, the current of which is in a state of permanency. We can conceive it as consisting of two half cylinders, an upper and a lower. These are running together at an equal pace; and the filaments of each immediately contiguous to the separating plane and to each other, are not rubbing on each other, nor affecting each others motions in the smallest degree. It is true that the upper half is pressing on the lower, but in a direction perpendicular to the motion, and therefore not affecting the velocity; and we shall see presently, that although the lower side of the pipe bears somewhat more pressure than the other, the resistances are not changed. (Indeed this odds of pressure is accompanied with a difference of motion, which need not be considered at present; and we may suppose the pipe so small or so far below the surface, that this shall be insensible). Now let us suppose, that in an instant the upper half cylinder is annihilated: We then have an open stream; and every circumstance of accelerating force and of resistance remains precisely as it was. The motion must therefore continue as it did;

(A) We recommend it to the reader to make this distribution or allotment of the different portions of the pressure very familiar to his mind. It is of the most extensive influence in every question of hydraulics, and will on every occasion give him distinct conceptions of the internal procedure. Obvious as the thought seems to be, it has escaped the attention of all the writers on the subject. Lecchi, in his *Hydraulics* published in 1766, ascribes something like it to Daniel Bernoulli; but Bernoulli, in the passage quoted, only speaks of the partition of pressure in the instant of opening an orifice. Part of it, says he, is employed in accelerating the quiescent water, and producing the velocity of efflux, and the remainder produces the pressure (now diminished) on the sides of the vessel. Bernoulli, Bossut, and all the good writers, make this distribution in express terms in their explanation of the motion of water through successive orifices; and it is surprising that no one before the Chevalier de Buat saw that the resistance arising from friction required a similar partition of the pressure; but though we should call this good fortune, we must ascribe to his great sagacity and justness of conception the beautiful use that he has made of it: "*suum cuique*".

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did; and in this state the only accelerating force is the slope of the surface. The demonstration therefore is complete.

44 Consequence.

From these observations and reasonings we draw a general and important conclusion, "That the same pipe will be susceptible of different velocities, which it will preserve uniform to any distance, according as it has different inclinations; and each inclination of a pipe of given diameter has a certain velocity peculiar to itself, which will be maintained uniform to any distance whatever; and this velocity increases continually, according to some law, to be discovered by theory or experiment, as the position of the pipe changes, from being horizontal till it becomes vertical; in which position it has the greatest uniform velocity possible relative to its inclination, or depending on inclination alone."

Let this velocity be called the TRAIN, or the RATE of each pipe.

45 Measure of the resistance to the motion with a given velocity.

It is evident that this principle is of the utmost consequence in the theory of hydraulics; for by experiment we can find the train of any pipe. It is in train when an increase of length makes no change in the velocity. If lengthening the pipe increases the velocity, the slope of the pipe is too great, and *vice versa*. And having discovered the train of a pipe, and observed its velocity, and computed the head productive of this velocity with the contraction at the entry, the remainder of the head, that is the slope (for this is equivalent to EA), is the measure of the resistance. Thus we obtain the measure of the resistance to the motion with a given velocity in a pipe of given diameter. If we change only the velocity, we get the measure of the new resistance relative to the velocity; and thus discover the law of relation between the resistance and velocity. Then, changing only the diameter of the pipe, we get the measure of the resistance relative to the diameter. This is the aim of a prodigious number of experiments made and collected by Buat, and which we shall not repeat, but only give the results of the different parts of his investigation.

46 Results of De Buat's investigation on this subject.

We may express the slope of a pipe by the symbol $\frac{1}{s}$, 1 being an inch for instance, and s being the slaunt length of a pipe which is one inch more elevated at one end than at the other. Thus a river which has a declivity of an inch and a half in 120 fathoms or 8640 inches, has its slope $= \frac{1\frac{1}{2}}{8640}$, or $\frac{1}{5760}$. But in order to obtain the hydraulic slope of a conduit pipe, the height of the reservoir and place of discharge being given, we must subtract from the difference of elevation the height or head of water necessary for propelling the water into any pipe with the velocity V, which it is supposed actually to have. This is $\frac{V^2}{505}$. The remainder d is to be considered as the height of the declivity, which is to be distributed equally over the whole length l of the pipe, and the slope is then $\frac{d}{l} = \frac{1}{s}$.

There is another important view to be taken of the slope, which the reader should make very familar to his thoughts. It expresses the proportion between the weight of the whole column which is in motion and the weight which is employed in overcoming the resistance; and the resistance to the motion of any column of water is equal to the weight of that column multiplied by the fraction $\frac{1}{s}$, which expresses its slope.

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47 Of the resistances which bring the motions to a state of uniformity.

We come now to consider more particularly the resistances which in this manner bring the motion to a state of uniformity. If we consider the resistances which arise from a cause analogous to friction, we see that they must depend entirely on the inertia of the water. What we call the resistance is the diminution of a motion which *would* have obtained but for these resistances; and the best way we have of measuring them is by the force which we must employ in order to keep up or restore this motion. We estimate this motion by a progressive velocity, which we measure by the expence of water in a given time. We judge the velocity to diminish, when the quantity discharged diminishes; yet it may be otherwise, and probably is otherwise. The absolute velocity of many, if not all, of the particles, may even be increased; but many of the motions, being transverse to the general direction, the quantity of motion in this direction may be less, while the sum of the absolute motions of all the particles may be greater. When we increase the general velocity, it is not unreasonable to suppose that the impulses on all the inequalities are increased in this proportion; and the number of particles thus impelling and deflected at the same time will increase in the same proportion. The whole quantity therefore of these useless and lost motions will increase in the duplicate ratio of the velocities, and the force necessary for keeping up the motion will do so also; that is, the resistances should increase as the squares of the velocities.

Or if we consider the resistances as arising merely from the curvature of the imperceptible internal motions occasioned by the inequalities of the sides of the pipe, and as measured by the forces necessary for producing these curvilineal motions; then, because the curves will be the same whatever are the velocities, the deflecting forces will be as the squares of the velocities; but these deflecting forces are pressures, propagated from the parts urged on pressed by the external force, and are proportional to these external pressures by the principles of hydrostatics. Therefore the pressures or forces necessary for keeping up the velocities are as the squares of these velocities; and they are our only measures of the resistances which must be considered as following the same ratio. Whatever view therefore we take of the nature of these resistances, we are led to consider them as proportional to the squares of the velocities.

We may therefore express the resistances by the symbol $\frac{V^2}{m}$, m being some number to be discovered by experiment. Thus, in a particular pipe, the diminution of the motion or the resistance may be the 1000th part of the square of the velocity, and $R = \frac{V^2}{1000}$.

Now if g be the accelerating power of gravity on any particle, $\frac{g}{s}$, will be its accelerating power, by which it would urge it down the pipe whose slope is $\frac{1}{s}$. Therefore,

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fore, by the principle of uniform motion, the equality of the accelerating force, and the resistance, we shall have $\frac{V^2}{m} = \frac{g}{s}$, and $V\sqrt{s} = \sqrt{mg}$; that is, the product of the velocity, and the reciprocal of the square root of the slope, or the quotient of the velocity divided by the slope, is a constant quantity $\sqrt{mg}$ for any given pipe; and the primary formula for all the uniform velocities of one pipe is $V = \frac{\sqrt{mg}}{\sqrt{s}}$.

48 Experiments and reasoning of De Buat, respecting these resistances, &c.

Mr Buat therefore examined this by experiment, but found, that even with respect to a pipe or channel which was uniform throughout, this was not true. We could give at once the final formula which he found to express the velocity in every case whatever; but this would be too empirical. The chief steps of his very sagacious investigation are instructive. We shall therefore mention them briefly, at least as far at they tend to give us any collateral information; and let it always be noted, that the instruction which they convey is not abstract speculation, but experimental truths, which must ever remain as an addition to our stock of knowledge, although Mr Buat's deductions from them should prove false.

He found, in the first place, that in the same channel the product of V and $\sqrt{s}$ increased as $\sqrt{s}$ increased; that is, the velocities increased faster than the square roots of the slope, or the resistances did not increase as fast as the squares of the velocities. We beg leave to refer our readers to what we said on the resistance of pipes to the motion of fluids through them, in the article PNEUMATICS, when speaking of bellows. They will there see very valid reasons (we apprehend) for thinking that the resistances must increase more slowly than the squares of the velocities.

It being found, then, that $V\sqrt{s}$ is not equal to a constant quantity $\sqrt{mg}$, it becomes necessary to investigate some quantity depending on $\sqrt{s}$, or, as it is called, some function of $\sqrt{s}$, which shall render $\sqrt{mg}$ a constant quantity. Let X be this function of $\sqrt{s}$, so that we shall always have VX equal to the constant quantity $\sqrt{mg}$, or $\frac{\sqrt{mg}}{X}$ equal to the actual velocity V of a pipe or channel which is in train.

Mr Buat, after many trials and reflections, the chief of which will be mentioned by and by, found a value of X which corresponded with a vast variety of slopes and velocities, from motions almost imperceptible, in a bed nearly horizontal, to the greatest velocities which could be produced by gravity alone in a vertical pipe; and when he compared them together, he found a very discernible relation between the resistances and the magnitude of the section: that is, that in two channels which had the same slope, and the same propelling force, the velocity was greatest in the channel which had the greatest section relative to its border. This may reasonably be expected. The resistances arise from the mutual action of the water and this border. The water immediately contiguous to it is retarded, and this retards the next, and so on. It is to be expected, therefore, that if the border, and the velocity, and the slope, be the same, the diminution of this velocity will be so much the less as it is to be shared among a greater number of particles; that is, as the area of the section is greater in proportion to the extent of its border. The diminution of the general or medium velocity must be less in a cylindrical pipe than in a square one of the same area, because the border of its section is less.

It appears evident, that the resistance of each particle is in the direct proportion of the whole resistance, and the inverse proportion of the number of particles which receive equal shares of it. It is therefore directly as the border, and inversely as the section. Therefore in the expression $\frac{V^2}{m}$ which we have given for the resistance, the quantity m cannot be constant, except in the same channel; and in different channels it must vary along with the relation of the section to its border, because the resistances diminish in proportion as this relation increases.

Without attempting to discover this relation by theoretical examination of the particular motions of the various filaments, Mr Buat endeavoured to discover it by a comparison of experiments. But this required some manner of stating this proportion between the augmentation of the section and the augmentation of its border.

His statement is this: He reduces every section to a rectangular parallelogram of the same area, and having its base equal to the border unfolded into a straight line. The product of this base by the height of the rectangle will be equal to the area of the section. Therefore this height will be a representative of this valuable ratio of the section to its border (we do not mean that there is any ratio between a surface and a line: but the ratio of section to section is different from that of border to border; and it is the ratio of these ratios which is thus expressed by the height of this rectangle). If S be the section, and B the border, $\frac{S}{B}$ is evidently a line equal to the height of this rectangle. Every section being in this manner reduced to a rectangle, the perpendicular height of it may be called the HYDRAULIC MEAN DEPTH of the section, and may be expressed by the symbol d. (Buat calls it the mean radius). If the channel be a cylindrical pipe, or an open half cylinder, it is evident that d is half the radius. If the section is a rectangle, whose width is w, and height h, the mean depth is $\frac{wh}{b+2h}$, &c. In general, if q represent the proportion of the breadth of a rectangular canal to its depth, that is, if q be made $= \frac{w}{h}$, we shall have $d = \frac{w}{q+2}$, or $d = \frac{qh}{q+2}$.

Now, since the resistances must augment as the proportion of the border to the section augments, m in the formulas $\frac{V^2}{m} = \frac{g}{s}$ and $V\sqrt{s} = \sqrt{mg}$ must follow the proportions of d, and the quantity $\sqrt{mg}$ must be proportional to $\sqrt{d}$, for different channels, and $\frac{\sqrt{mg}}{\sqrt{d}}$ should be a constant quantity in every case.

Theory.

49 A specious objection

Our author was aware, however, of a very specious objection to the close dependence of the resistance on the extent of the border; and that it might be said that a double border did not occasion a double resistance, unless the pressure on all the parts was the same. For it may be naturally (and it is generally) supposed, that theresistance will be greater when the pressure is greater. The friction or resistance analogous to friction may therefore be greater on an inch of the bottom than on an inch of the sides; but M. d'Alembert and many others have demonstrated, that the paths of the filaments will be the same whatever be the pressures. This might serve to justify our ingenious author; but he was determined to rest every thing on experiment. He therefore made an experiment on the oscillation of water in syphons, which we have repeated in the following form, which is affected by the same circumstances, and is susceptible of much greater precision, and of more extensive and important application.

50 Obviated by an experiment on the oscillation of water in syphons.

Fig. 9.

The two vessels ABCD, *a b c d* (fig. 9) were connected by the syphon EFG *g f e*, which turned round in the short tubes E and *e*, without allowing any water to escape; the axis of these tubes being in one straight line. The vessels were about 10 inches deep, and the branches FG, *f g* of the syphon were about five feet long. The vessels were set on two tables of equal height, and (the hole *e* being stopped) the vessel ABCD, and the whole syphon, were filled with water, and water was poured into the vessel *a b c d* till it stood at a certain height LM. The syphon was then turned into a horizontal position, and the plug drawn out of *e*, and the time carefully noted which the water employed in rising to the level HK *k h* in both vessels. The whole apparatus was now inclined, so that the water ran back into ABCD. The syphon was now put in a vertical position, and the experiment was repeated.—No sensible or regular difference was observed in the time. Yet in this experiment the pressure on the part G *g* of the syphon was more than six times greater than before. As it was thought that the friction on this small part (only six inches) was too small a portion of the whole obstruction, various additional obstructions were put into this part of the syphon, and it was even lengthened to nine feet; but still no remarkable difference was observed. It was even thought that the times were less when the syphon was vertical.

51 The resistance depends chiefly on the relation between the section and its border.

Thus M. De Buat's opinion is completely justified; and he may be allowed to assert, that the resistance depends chiefly on the relation between the section and its border; and that $\frac{\sqrt{mg}}{\sqrt{d}}$ should be a constant quantity.

To ascertain this point was the object of the next series of experiments: to see whether this quantity was really constant, and, if not, to discover the law of its variation, and the physical circumstances which accompanied the variations, and may therefore be considered as their causes. A careful comparison of a very great number of experiments, made with the same slope, and with very different channels and velocities, showed that $\sqrt{mg}$ did not follow the proportion of $\sqrt{d}$, nor of any power of $\sqrt{d}$. This quantity $\sqrt{mg}$ increased by smaller degrees in proportion as $\sqrt{d}$ was greater. In very great beds $\sqrt{mg}$ was nearly proportional to $\sqrt{d}$; but in smaller channels, the velocities diminished much more than $\sqrt{d}$ did. Casting about for some way of accommodation, Mr Buat considered, that some approximation at least would be had by taking off from $\sqrt{d}$ some constant small quantity. This is evident: For such a diminution will have but a trifling effect when $\sqrt{d}$ is great, and its effect will increase rapidly when $\sqrt{d}$ is very small. He therefore tried various values for this subtraction, and compared the results with the former experiments; and he found, that if in every case $\sqrt{d}$ be diminished by one-tenth of an inch, the calculated discharges would agree very exactly with the experiment. Therefore, instead of $\sqrt{d}$, he makes use of $\sqrt{d}-0.1$, and finds this quantity always proportional to $\sqrt{mg}$, or finds that $\frac{\sqrt{mg}}{\sqrt{d}-0.1}$ is a constant quantity, or very nearly so. It varied from 297 to 287 in all sections, from that of a very small pipe to that of a little canal. In the large sections of canals and rivers it diminished still more, but never was less than 256.

52 The result agreeable to our distinctest notions of the action of water, and its bed,

This result is very agreeable to the most distinct notions that we can form of the mutual actions of the water and its bed. We see, that when the motion of water is obstructed by a solid body, which deflects the passing filaments, the disturbance does not extend to any considerable distance on the two sides of the body. In like manner, the small disturbances, and imperceptible curvilineal motions, which are occasioned by the infinitesimal inequalities of the channel, must extend to a very small distance indeed from the sides and bottom of the channel. We know, too, that the mutual adhesion or attraction of water for the solid bodies which are moistened by it, extends to a very small distance; which is probably the same, or nearly so, in all cases. Mr Buat observed, that a surface of 23 square inches, applied to the surface of stagnant water, lifted 1601 grains; another of $5\frac{1}{2}$ square inches lifted 365: this was at the rate of 65 grains per inch nearly, making a column of about one-sixth of an inch high. Now this effect is very much analogous to a real contraction of the capacity of the channel. The water may be conceived as nearly stagnant to this small distance from the border of the section. Or, to speak more accurately, the diminution of the progressive velocity occasioned by the friction and adhesion of the sides, decreases very rapidly as we recede from the sides, and ceases to be sensible at a very small distance.

53 and confirmed by experiment.

The writer of this article verified this by a very simple and instructive experiment. He was making experiments on the production of vortices, in the manner suggested by Sir Isaac Newton, by whirling a very accurate and smoothly polished cylinder in water; and he found that the rapid motion of the surrounding water was confined to an exceeding small distance from the cylinder, and it was not till after many revolutions that it was sensible even at the distance of half an inch. We may, by the way, suggest this as the best form of experiments for examining the resistances of pipes. The motion excited by the whirling cylinder in the stagnant water is equal and opposite to the motion lost by water passing along a surface

Theory.

surface equal to that of the cylinder with the same velocity. Be this as it may, we are justified in considering, with Mr Buat, the section of the stream as thus diminished by cutting off a narrow border all round the touching parts, and supposing that the motion and discharge is the same as if the root of the mean depth of the section were diminished by a small quantity, nearly constant. We see, too, that the effect of this must be insensible in great canals and rivers; so that, fortunately, its quantity is best ascertained by experiments made with small pipes. This is attended with another conveniency, in the opinion of Mr Buat, namely, that the effect of viscidity is most sensible in great masses of water in slow motion, and is almost insensible in small pipes, so as not to disturb these experiments. We may therefore assume 297 as the general value of $\frac{\sqrt{mg}}{\sqrt{d}-0.1}$.

Since we have $\frac{\sqrt{mg}}{\sqrt{d}-0.1} = 297$, we have also $m = \frac{\overline{297^2}\sqrt{d}-0.1^2}{g}, = \frac{88209}{362}(\sqrt{d}-0.1)^2, = 243.6\ (\sqrt{d}-0.1)^2$. This we may express by $n\ (\sqrt{d}-0.1)^2$. And thus, when we have expressed the effect of friction by $\frac{V^2}{m}$, the quantity m is variable, and its general value is $\frac{V^2}{n(\sqrt{d}-0.1)^2}$, in which n is an invariable abstract number equal to 243.7, given by the nature of the resistance which water sustains from its bed, and which indicates its intensity.

And, lastly, since $m = n\ (\sqrt{d}-0.1)^2$, we have $\sqrt{mg} = \sqrt{ng}\ (\sqrt{d}-0.1)$, and the expression of the velocity V, which water acquires and maintains along any channel whatever, now becomes $V = \frac{\sqrt{ng}(\sqrt{d}-0.1)}{X}$, or $\frac{297\ (\sqrt{d}-0.1)}{X}$, in which X is also a variable quantity, depending on the slope of the surface or channel, and expressing the accelerating force which, in the case of water in train, is in equilibrio with the resistances expressed by the numerator of the fraction.

54 Law of acceleration investigated.

Having so happily succeeded in ascertaining the variations of resistance, let us accompany M. Buat in his investigation of the law of acceleration, expressed by the value of X.

Experience, in perfect agreement with any distinct opinions that we can form on this subject, had already showed him, that the resistances increased in a slower ratio than that of the squares of the velocities, or that the velocities increased slower than $\sqrt{s}$. Therefore, in the formula $V = \frac{\sqrt{ng}\ (\sqrt{d}-0.1)}{X}$ which, for one channel, we may express thus, $V = \frac{A}{X}$, we must admit that X is sensibly equal to $\sqrt{s}$ when the slope is very small or s very great. But, that we may accurately express the velocity in proportion as the slope augments, we must have X greater than $\sqrt{s}$; and moreover, $\frac{\sqrt{s}}{X}$ must increase as $\sqrt{s}$ diminishes. These conditions are necessary, that our values of V, deduced from the formula $V = \frac{A}{X}$, may agree with the experiment.

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In order to comprehend every degree of slope, we must particularly attend to the motion through pipes, because open canals will not furnish us with instances of exact TRAINS with great slopes and velocities. We can make pipes vertical. In this case $\frac{1}{s}$ is $\frac{1}{1}$, and the velocity is the greatest possible for a train by the action of gravity: But we can give greater velocities than this by increasing the head of water beyond what produces the velocity of the train.

Fig. 10.

Let AB (fig. 10.) be a vertical tube, and let CA be the head competent to the velocity in the tube, which we suppose to be in train. The slope is 1, and the full weight of the column in motion is the precise measure of the resistance. The value of $\frac{1}{s}$, considered as a slope, is now a maximum; but, considered as expressing the proportion of the weight of the column in motion to the weight which is in equilibrio with the resistance, it may not be a maximum; it may surpass unity, and s may be less than 1. For if the vessel be filled to E, the head of water is increased, and will produce a greater velocity, and this will produce a greater resistance. The velocity being now greater, the head EF which imparts it must be greater than CA. But it will not be equal to EA, because the uniform velocities *are found* to increase faster than the square roots of the pressures. This is the general fact. Therefore F is above A, and the weight of the column FB, now employed to overcome the resistance, is greater than the weight of the column AB in motion. In such cases, therefore, $\frac{1}{s}$, greater than unity, is a sort of fictitious slope, and only represents the proportion of the resistance to the weight of the moving column. This proportion may surpass unity.

But it cannot be infinite: For supposing the head of water infinite: if this produce a finite velocity, and we deduct from the whole height the height corresponding to this finite velocity, there will remain an infinite head, the measure of an infinite resistance produced by a finite velocity. This does not accord with the observed law of the velocities, where the resistances actually do not increase as fast as the squares of the velocities. Therefore an infinite head would have produced an infinite velocity, in opposition to the resistances: taking off the head of the tube, competent to this velocity, at the entry of the tube, which head would also be infinite, the remainder would in all probability be finite, balancing a finite resistance.

Therefore the value of s may remain finite, although the velocity be infinite; and this is agreeable to all our clearest notions of the resistances.

Adopting this principle, we must find a value of X which will answer all these conditions. 2. It must be sensibly proportional to $\sqrt{s}$, while s is great. It must always be less than $\sqrt{s}$. 3. It must deviate from the proportion of $\sqrt{s}$, so much the more as $\sqrt{s}$ is smaller.

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4. It must not vanish when the velocity is infinite.
5. It must agree with a range of experiments with every variety of channel and of slope.

We shall understand the nature of this quantity X better by representing by lines the quantities concerned in forming it.

Fig. 11. If the velocities were exactly as the square roots of the slopes, the equilateral hyperbola NKS (fig. 11.) between its assymptotes MA, AB, would represent the equation $V = \frac{A}{\sqrt{s}}$. The values of $\sqrt{s}$ would be represented by the abscissæ, and the velocities by the ordinates, and $V\sqrt{s} = A$ would be the power of the hyperbola. But since these velocities are not sensibly equal to $\frac{A}{\sqrt{s}}$ except when $\sqrt{s}$ is very great, and deviate the more from this quantity as $\sqrt{s}$ is smaller; we may represent the velocities by the ordinates of another curve PGT, which approaches very near to the hyperbola, at a great distance from A along AB; but separates from it when the abscissæ are smaller: so that if AQ represents that value of $\sqrt{s}$ (which we have seen may become less than unity), which corresponds to an infinite velocity, the line QO may be the assymptote of the new curve. Its ordinates are equal to $\frac{A}{X}$ while those of the hyperbola are equal to $\frac{A}{\sqrt{s}}$. Therefore the ratio of these ordinates or $\frac{\sqrt{s}}{X}$ should be such that it shall be so much nearer to unity as $\sqrt{s}$ is greater' and shall surpass it so much the more as $\sqrt{s}$ is smaller.

To express X, therefore, as some function of $\sqrt{s}$ so as to answer these conditions, we see in general that X must be less than $\sqrt{s}$. And it must not be equal to any power of $\sqrt{s}$ whose index is less than unity, because then $\frac{\sqrt{s}}{X}$ would differ so much the more from unity as $\sqrt{s}$ is greater. Nor must it be any multiple of $\sqrt{s}$ such as $q\sqrt{s}$, for the same reason. If we make $X = \sqrt{s} - K$, K being a constant quantity, we may answer the first condition pretty well. But K must be very small, that X may not become equal to nothing, except in some exceedingly small value of $\sqrt{s}$. Now the experiments will not admit of this, because the ratio $\frac{\sqrt{s}}{\sqrt{s} - K}$ does not increase sufficiently to correspond with the velocities which we observe in certain slopes, unless we make K greater than unity, which again is inconsistent with other experiments. We learn from such canvassing that it will not do to make K a constant quantity. If we should make it any fractionary power of $\sqrt{s}$ it would make $X = 0$, that is, nothing, when s is $= 1$, which is also contrary to experience. It would seem, therefore, that nothing will answer for K but some power of $\sqrt{s}$ which has a variable index. The logarithm of $\sqrt{s}$ has this property. We may therefore try to make $X = \sqrt{s} - \log.\sqrt{s}$. Accordingly if we try the equation $V = \frac{A}{\sqrt{s} - \text{hyp. log. } \sqrt{s}}$, we shall find a very great agreement with the experiments till the declivity becomes considerable, or about $\frac{1}{20}$, which is much greater than any river. But it will not agree with the velocities observed in some mill courses, and in pipes of a still greater declivity, and gives a velocity that is too small; and in vertical pipes the velocity is not above one half of the true one. We shall get rid of most of these incongruities if we make K consist of the hyperbolic logarithm of $\sqrt{s}$ augmented by a small constant quantity, and by trying various values for this constant quantity, and comparing the results with experiment, we may hit on one sufficiently exact for all practical purposes.

M. de Buat, after repeated trials, found that he would have a very great conformity with experiment by making $K = \log.\sqrt{s + 1.6}$, and that the velocities exhibited in his experiments would be very well represented by the formula $V = \frac{297(\sqrt{d} - 0.1)}{\sqrt{s} - L\sqrt{s + 1.6}}$

55 Mutual adhesion of the particles of water.

There is a circumstance which our author seems to have overlooked on this occasion, and which is undoubtedly of great effect in these motions, viz. the mutual adhesion of the particles of water. This causes the water which is descended (in a vertical pipe for example) to drag more water after it, and thus greatly increases its velocity. We have seen an experiment in which the water issued from the bottom of a reservoir through a long vertical pipe having a very gentle taper. It was 15 feet long, one inch diameter at the upper end, and two inches at the lower. The depth of the water in the reservoir was exactly one foot; in a minute there were discharged $2\frac{9}{10}$ cubic feet of water. It must therefore have issued through the hole in the bottom of the reservior with the velocity of 8.85 feet per second And yet we know that this head of water could not make it pass through the hole with a velocity greater than 6.56 feet per second. This increase must therefore have arisen from the cause we have mentioned, and is a proof of the great intensity of this force. We doubt not but that the discharge might have been much more increased by proper contrivances; and we know many instances in water pipes where this effect is produced in a very great degree.

56 An actual case

The following case is very distinct: Water is brought into the town of Dunbar in the county of East Lothian from a spring at the distance of about 3200 yards. It is conveyed along the first 1100 yards in a pipe of two inches diameter, and the declivity is 12 feet 9 inches; from thence the water flows in a pipe of $1\frac{1}{2}$ diameter, with a declivity of 44 feet three inches, making in all 57 feet. When the work was carried as far as the two-inch pipe reached, the discharge was found to be 27 Scotch pints, of $103\frac{1}{2}$ cubic inches each in a minute. When it was brought into the town, the discharge was 28. Here it is plain that the descent along the second stretch of the pipe could derive no impulsion from the first. This was only able to supply 27 pints, and to *deliver* it into a pipe of equal bore. It was not equivalent to the forcing it into a smaller pipe, and almost doubling its velocity. It must therefore have been *dragged* into this smaller pipe by the weight of what was descending along it, and this water was exerting a force equivalent to a head of 16 inches, increasing the velocity from 14 to about 28.

Theory.

57 proves that the smallest declivity will produce a current.

It must be observed, that if this formula be just, there can be no declivity so small that a current of water will not take place in it. And accordingly none has been observed in the surface of a stream when this did not happen. But it also should happen with respect to any declivity of bottom. Yet we know that water will hang on the sloping surface of a board without proceeding further. The cause of this seems to be the adhesion of the water combined with its viscidity. The viscidity of a fluid presents a certain force which must be overcome before any current can take place.

A series of important experiments were made by our author in order to ascertain the relation between the velocity at the surface of any stream and that at the bottom. These are curious and valuable on many accounts. One circumstance deserves our notice here, viz. that *the difference between the superficial and bottom velocities of any stream are proportional to the square roots of the superficial velocities.* From what has been already said on the gradual diminution of the velocities among the adjoining filaments, we must conclude that the same rule holds good with respect to the velocity of separation of two filaments immediately adjoining. Hence we learn that this velocity of separation is in all cases indefinitely small, and that we may, without danger of any sensible error, suppose it a constant quantity in all cases.

58 A constant part of the accelerating force employed in overcoming the viscidity, &c.

We think, with our ingenious author, that on a review of these circumstances, there is a constant or invariable portion of the accelerating force employed in overcoming this viscidity and producing this mutual separation of the adjoining filaments. We may express this part of the accelerating force by a part $\frac{1}{S}$ of that slope which constitutes the whole of it. If it were not employed in overcoming this resistance, it would produce a velocity which (on account of this resistance) is not produced, or is lost. This would be $\frac{A}{\sqrt{S}-L\sqrt{S}}$. This must therefore be taken from the velocity exhibited by our general formula. When thus corrected, it would become $V = (\sqrt{d}-0.1)\left(\frac{\sqrt{mg}}{\sqrt{s}-L\sqrt{s+1.6}} - \frac{\sqrt{ng}}{\sqrt{S}-L\sqrt{S}}\right)$. But as the term $\frac{\sqrt{ng}}{\sqrt{S}-L\sqrt{S}}$ is compounded only of constant quantities, we may express it by a single number. This has been collected from a scrupulous attention to the experiments (especially in canals and great bodies of water moving with very small velocities; in which case the effects of viscidity must become more remarkable), and it appears that it may be valued at $\sqrt{\frac{\text{inch}}{0.09}}$ or 0.3 inches very nearly.

From the whole of the foregoing considerations, drawn from nature, supported by such reasonings as our most distinct notions of the internal motions will admit, and authorised by a very extensive comparison with experiment, we are now in a condition to conclude a complete formula, expressive of the uniform motion of water, and involving every circumstance which appears to have any share in the operation.

Theory.

59 Formula expressing the uniform motion of water.

Therefore, let

V represent the mean velocity, in inches per second, of any current of water, running uniformly, or which is IN TRAIN, in a pipe or open channel, whose section, figure, and slope, are constant, but its length indefinite.

d The hydraulic mean depth, that is, the quotient arising from dividing the section of the channel, in square inches, by its border, expressed in linear inches.

s The slope of the pipe, or of the surface of the current. It is the denominator of the fraction expressing this slope, the numerator being always unity; and is had by dividing the expanded length of the pipe or channel by the difference of height of its two extremities.

g The velocity (in inches per second) which a heavy body acquires by falling during one second.

n An abstract constant number, determined by experiment to be 243.7.

L The hyperbolic logarithm of the quantity to which it is prefixed, and is had by multiplying the common logarithm of that quantity by 2.3026.

We shall have in every instance

$$V = \frac{\sqrt{ng}\,(\sqrt{d}-0.1)}{\sqrt{s}-L.\sqrt{s+1.6}} - 0.3\,(\sqrt{d}-0.1)$$

This, in numbers, and English measure, is

$$V = \frac{307\,(\sqrt{d}-0.1)}{\sqrt{s}-L\sqrt{s+1.6}} - 0.3\,(\sqrt{d}-0.1)$$

And in French measure

$$V = \frac{297\,(\sqrt{d}-0.1)}{\sqrt{s}-L\sqrt{s+1.6}} - 0.3\,(\sqrt{d}-0.1).$$

The following table contains the real experiments from which this formula was deduced, and the comparison of the real velocities with the velocities computed by the formula. It consists of two principal sets of experiments. The first are those made on the motion of water in pipes. The second are experiments made on open canals and rivers. In the first set, column 1st contains the number of the experiment; 2d, the length of the tube; 3d, the height of the reservoir; 4th, the values of S, deduced from column second and third; 5th gives the observed velocities, and 6th the velocities calculated by the formula.

In the second set, column 2d gives the area of the section of the channel; 3d, the border of the canal or circumference of the section, deducting the horizontal width, which sustains no friction; 4th, the square root $\sqrt{d}$ of the hydraulic mean depth; 5th, the denominator S of the slope; 6th, the observed mean velocities; and 7th, the mean velocities by the formula. In the last ten experiments on large canals and a natural river the 6th column gives the observed velocities at the surface.

Theory. 60 Table containing the experiments from which the formula is deduced.

SET I. *Experiments on Pipes.*

Experiments by Chevalier DE BUAT.

N°	Length of Pipe.	Height of Reservoir	Values of *s*.	Velocities observed.	Velocities calculated.
	Vertical Tube $\frac{2}{3}$ of a Line in Diameter and $\sqrt{d} = 0.117851$.				
	Inch.	Inch.	Inch.	Inch.	Inch.
1	12	16.166	0.75636	11.704	12.006
2	12	13.125	0.9307	9.753	10.576
	Vertical Pipe $1\frac{1}{2}$ Lines Diameter, and $\sqrt{d} = 0.176776$ Inch.				
3	34.166	42.166	0.9062	45.468	46.210
4	Do.	38.333	0.9951	43.156	43.721
5	Do.	36.666	1.0396	42.385	42.612
6	Do.	35.333	1.0781	41.614	41.714
	The same Pipe Horizontal.				
7	34.166	14.583	2.5838	26.202	25.523
8	Do.	9.292	4.0367	21.064	19.882
9	Do.	5.292	7.036	14.642	14.447
10	Do.	2.083	17.6378	7.320	2.351
	Vertical Pipe 2 Lines Diameter, and $\sqrt{d} = 0.204124$.				
11	36.25	51.250	0.85451	67.373	64.945
12	Do.	45.250	0.96338	59.605	60.428
13	Do.	41.916	1.02808	57.220	57.838
14	Do.	38.750	1.12047	54.186	55.321
	Same Pipe with a slope of $\frac{1}{1.3024}$.				
15	36.25	33.500	1.29174	51.151	50.983
	Same Pipe Horizontal.				
16	36.25	15.292	2.7901	33.378	33.167
17	Do.	8.875	4.76076	25.430	24.558
18	Do.	5.292	7.89587	19.940	18.313
19	Do.	2.042	20.01637	10.620	10.492
	Vertical Pipe $2\frac{9}{10}$ Lines Diameter, and $\sqrt{d} = 0.245798$.				
20	36.25	53.250	0.95235	85.769	85.201
21	Do.	50.250	1.00642	82.471	82.461
22	Do.	48.333	1.0444	81.646	80.698
23	Do.	48.333	1.0444	79.948	
24	Do.	47.916	1.0529	81.027	80.318
25	Do.	44.750	1.1241	76.079	77.318
26	Do.	41.250	1.2157	73.811	73.904
	The same Pipe with the slope $\frac{1}{1.3024}$.				
27	36.25	37.5	1.3323	70.822	70.138

The same Pipe Horizontal.

N°	Length of Pipe.	Height of Reservoir.	Values of *s*.	Velocities observed.	Velocities calculated.
	Inch.	Inch.	Inch.	Inch.	Inch.
28	36.25	20.166	2.4303	51.956	50.140
29	Do.	9.083	5.2686	33.577	32.442
30	Do.	7.361	6.4504	28.658	28.801
31	Do.	5.	9.3573	23.401	23.195
32	Do.	4.916	9.5097	22.989	22.974
33	Do.	4.833	9.6652	22.679	22.754
34	Do.	3.708	12.4624	19.587	19.550
35	Do.	2.713	16.3135	16.631	16.324
36	Do.	2.083	21.6639	14.295	14.008
37	Do.	1.625	27.5102	12.680	12.115
38	Do.	0.833	52.3427	7.577	8.215
	Pipes sensibly Horizontal $\sqrt{d} = 0.5$, or 1 Inch Diameter.				
39	117	36	5.6503	84.945	85.524
40	117	26.666	7.48	71.301	72.617
41	138.5	20.950	10.3215	58.808	60.034
42	117	18	10.7880	58.310	58.472
43	138.5	6	33.1962	29.341	29.663
44	737	23.7	33.6658	28.669	29.412
45	Do.	14.6	54.2634	21.856	22.056
46	Do.	13.7	57.7772	20.970	21.240
47	Do.	12.32	64.1573	19.991	19.950
48	Do.	8.96	87.8679	16.625	16.543
49	Do.	8.96		16.284	
50	Do.	7.780	101.0309	15.112	15.232
51	Do.	5.93	132.1617	13.315	13.005
52	Do.	4.2	186.0037	10.671	10.656
53	Do.	4.2		10.441	
54	138.5	0.7	257.8863	8.689	8.824
55	737	0.5	1540.75	3.623	3.218
56	737	0.15	5113.42	1.589	1.647

Experiments by the Abbe BOSSUT.

	Horizontal Pipe 1 Inch Diameter $\sqrt{d} = 0.5$.				
57	600	12	54.5966	22.282	21.975
58	600	4	161.312	12.223	11.756
	Horizontal Pipe $1\frac{1}{3}$ Inch Diameter $\sqrt{d} = 0.5774$.				
59	360	24	19.0781	48.534	49.515
60	720	24	33.6166	34.473	35.130
61	360	12	37.0828	33.160	33.106
62	1080	24	48.3542	28.075	28.211
63	1440	24	64.1806	24.004	24.023
64	720	12	66.3020	23.360	23.345
65	1800	24	78.0532	21.032	21.182
66	2160	24	92.9474	18.896	19.096
67	1080	12	95.8756	18.943	18.749
68	1440	12	125.6007	16.128	15.991
69	1800	12	155.4015	14.066	14.119
70	2160	12	185.2487	12.560	12.750

Horizontal

Theory.

Horizontal Pipe 2.01 *Inch Diameter* $\sqrt{d}$=0:708946.

N°	Length of Pipe.	Height of Reservoir.	Values of *s*.	Velocities observed.	Velocities calculated.
71	360	24	21.4709	58.903	58.803
72	720	24	35.8082	43.	43.136
73	360	12	41.2759	40.322	39.587
74	1080	24	50.4119	35.765	35.096
75	1440	24	65.1448	30.896	30.096
76	720	12	70.1426	29.215	28.796
77	1800	24	79.8487	27.470	26.639
78	2160	24	94.7901	27.731	24.079
79	1080	12	99.4979	23.806	23.400
80	1440	12	129.0727	20.707	20.076
81	1800	12	158.7512	18.304	17.788
82	2160	12	188.5172	16.377	16.097

MR COUPLET'S Experiments at Versailles.

Pipe 5 *Inches Diameter* $\sqrt{d}$ =1.11803.

83	84240	25	3378.26	5.323	5.287
84	Do.	24	3518.98	5.213	5.168
85	Do.	21.083	4005.66	4.806	4.887
86	Do.	16.750	5041.61	4.127	4.225
87	Do.	11.833	7450.43	3.154	3.388
88	Do.	5.583	15119.96	2.011	2.254

Pipe 18 *Inches Diameter* $\sqrt{d}$=2.12132.

89	43200	145.083	304.973	39.159	40.510

SET II. *Experiments with a Wooden Canal.*

N°	Section of Canal.	Border of Canal.	Values of $\sqrt{d}$	Values of *s*.	Mean Velocity observed	Mean Velocity calculated.
			Trapezium Canal.			
	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.
90	18.84	13.06	1.20107	212	27.51	27.19
91	50.60	29 50	1.3096	212	28 92	29.88
92	83.43	26.	1.7913	412	27.14	28.55
93	27.20	15.31	1.3329	427	18.28	20.39
94	39.36	18.13	1.4734	427	20 30	22.71
95	50.44	20.37	1.5736	427	22.37	24.37
96	56.43	21.50	1.6201	427	23.54	25.14
97	98.74	28.25	1.8696	432	28 29	29.06
98	100 74	28.53	1.8791	432	28.52	29.28
99	119.58	31.06	1.9622	432	30.16	30.60
100	126.20	31.91	1.9887	432	31.58	31.03
101	130.71	32.47	1.0064	432	31.89	31.32
102	135.32	33.08	1.0241	432	32.32	31.61
103	20.83	13.62	1.2367	1728	8.94	8.58
104	34.37	17.	1.4219	1728	9.71	9.98
105	36.77	17.56	1.4471	1728	11.45	10.17
106	42.01	18.69	1.4992	1728	12.84	10.53

Theory.

Rectangular Canal.

N°	Section of Canal.	Border of Canal.	Values of $\sqrt{d}$	Values of *s*.	Mean Velocity observed.	Mean Velocity calcul.
107	34.50	21.25	1.27418	458	20.24	18.66
108	86.25	27.25	1.77908	458	28.29	26.69
109	34.50	21.25	1.27418	929	13.56	11.53
110	35.22	21.33	1.28499	1412	9.20	10.01
111	51.75	23.25	1.49191	1412	12.10	11.76
112	76.19	26.08	1.70921	1412	14.17	13.59
113	105.78	29.17	1.90427	1412	15.55	15.24
114	69.	25.25	1.65308	9288	4.59	4.56
115	155.25	35.25	2.09868	9288	5.70	5.86

SET III. *Experiments on the Canal of* JARD.

N°	Section of Canal.	Border of Canal.	Values of $\sqrt{d}$	Values of *s*.	Velocity obs. at Surface.	Velocity calculated.
116	16252	402	6.3583	8919	17.42	18.77
117	11905	366	5.70320	11520	12.17	14.52
118	10475	360	5.3942	15360	15.74	11.61
119	7858	340	4.8074	21827	9.61	8.38
120	7376	337	4.6784	27648	7.79	7.07
121	6125	324	4.3475	27648	7.27	6.55

Experiments on the River Haine.

N°	Section of River.	Border of River.	Values of $\sqrt{d}$	Values of *s*.	Velocity at Surface.	Velocity (mean) calcul.
122	31498	569	7.43974	6048	35.11	27.62
123	38838	601	8.03879	6413	31.77	28.76
124	30905	568	7.37632	32951	13.61	16.08
125	39639	604	8.10108	35723	15.96	10.53

The comparison must be acknowledged to be most satisfactory, and shows the great penetration and address of the author, in so successfully sifting and appreciating the share which each co-operating circumstance has had in producing the very intricate and complicated effect. It adds some weight to the principles on which he has proceeded in this analysis of the mechanism of hydraulic motion, and must give us great confidence in a theory so fairly established on a very copious induction. The author offers it only as a rational and well-founded probability. To this character it is certainly entitled; for the suppositions made in it are agreeable to the most distinct notions we can form of these internal motions. And it must always be remembered that the investigation of the formula, although it be rendered somewhat more perspicuous by thus having recourse to those motions, has no dependence on the truth of the principles. For it is, in fact, nothing but a classification of experiments, which are grouped together by some one circumstance of slope, velocity, form of section, &c. in order to discover the law of the changes which are induced by a variation of the

61 The theory a well-founded probability, and

Theory.

the circumstances which do not resemble. The procedure was precisely similar to that of the astronomer when he deduces the elements of an orbit from a multitude of observations. This was the task of M. de Buat; and he candidly and modestly informs us, that the finding out analytical forms of expression which would exhibit these changes was the work of Mr Benezech de St Honore, a young officer of engineers, and his colleague in the experimental course. It does honour to his skill and address; and we think the whole both a pretty and instructive specimen of the method of discovering the laws of nature in the midst of complicated phenomena. Daniel Bernoulli first gave the rules of this method, and they have been greatly improved by Lambert, Condorcet, and De la Grange. Mr Coulomb has given some excellent examples of their application to the discovery of the laws of friction, of magnetical and electrical attraction, &c. But this present work is the most perspicuous and familiar of them all. It is the empirical method of generalising natural phenomena, and of deducing general rules, of which we can give no other demonsrtation but that they are faithful representations of matters of fact. We hope that others, encouraged by the success of M. de Buat, will follow this example, where public utility is preferred to a display of mathematical knowledge.

62 the experiments highly valuable.

Although the author may not have hit upon the precise *modus operandi*, we agree with him in thinking that nature seems to act in a way not unlike what is here supposed. At any rate, the range of experiments is so extensive, and so multifarious, that few cases can occur which are not included among them. The experiments will always retain their value (as we presume that they are faithfully narrated), whatever may become of the theory; and we are confident that the formula will give an answer to any question to which it may be applicable infinitely preferable to the vague guess of the most sagacious and experienced engineer.

63 The velocity given by the formula too large for ordinary works.

We must however observe, that as the experiments on pipes were all made with scrupulous care in the contrivance and execution of the apparatus, excepting only those of Mr Couplet on the main pipes at Versailles, we may presume that the formula gives the greatest velocities which can be expected. In ordinary works, where joints are rough or leaky, where drops of solder hang in the inside, where cocks intervene with deficient water-ways, where pipes have awkward bendings, contractions, or enlargements, and where they may contain sand or air, we should reckon on a smaller velocity than what results from our calculation; and we presume that an undertaker may with confidence promise $\frac{4}{5}$ of this quantity without any risk of disappointing his employer. We imagine that the actual performance of canals will be much nearer to the formula.

We have made inquiry after works of this kind executed in Britain, that we might compare them with the formula. But all our canals are locked and without motion; and we have only learned by an accidental information from Mr Watt, that a canal in his neighbourhood, which is 18 feet wide at the surface, and seven feet at the bottom, and four feet deep, and has a slope of one inch in a quarter of a mile, runs with the velocity of 17 inches per second at the surface, 10 at the bottom, and 14 in the middle. If we compute the motion of this canal by our formula, we shall find the mean velocity to be $13\frac{1}{3}$.

No river in the world has had its motion so much scrutinized as the Po about the end of the last century. It had been a subject of 100 years continual litigation between the inhabitants of the Bolognese and the Ferrarese, whether the waters of the Rheno should be thrown into the Tronco de Venezia or Po Grande. This occasioned very numerous measures to be taken of its sections and declivity, and the quantities of water which it contained in its different states of fulness. But, unfortunately, the long established methods of measuring waters, which were in force in Lombardy, made no account of the velocity; and not all the intreaties of Castelli, Grandi, and other moderns, could prevail on the visitors in this process to deviate from the established methods. We have therefore no minute accounts of its velocity, though there are many rough estimates to be met with in that valuable collection published at Florence in 1723, of the writings on the motion of rivers. From them we have extracted the *only precise observations* which are to be found in the whole work.

64 Observations on the velocity of the Po.

The Po Grande receives no river from Stellata to the sea, and its slope in that interval is found most surprisingly uniform, namely, six inches in the mile (reduced to English measure). The breadth in its great freshes is 759 feet at Lago Scuro, with a very uniform depth of 31 feet. In its lowest state (in which it is called *Po Magra*), its breadth is not less than 700, and its depth about $10\frac{1}{2}$.

The Rheno has a uniform declivity from the Ponte Emilio to Vigarano of 15 inches per mile. Its breadth in its greatest freshes is 189 feet, and its depth 9.

Signor Corrade in his report says, that in the state of the great freshes the velocity of the Rheno is most exactly $\frac{4}{5}$ of that of the Po.

Grandi says that a great fresh in the Rheno employs 12 hours (by many observations of his own) to come from Ponte Emilio to Vigarno, which is 50 miles. This is a velocity of 44 inches per second. And, by Corrade's proportion, the velocity of the Po Grande must be 55 inches per second.

Montanari's observation gives the Po Magra a velocity of 31 inches per second.

Let us compare these velocities with the velocities calculated by Buat's formula.

The hydraulic mean depths d and D of the Rheno and Po in the great freshes deduced from the above measures, are 98.6 and 344 inches; and their slopes s and S are $\frac{1}{4224}$ and $\frac{1}{10560}$. This will give

$$\frac{307(\sqrt{D}-0.1)}{\sqrt{S}-L\sqrt{S+1.6}}-0.3\,(\sqrt{D}-0.1\ (=52.176 \text{ inches}$$

and $$\frac{307(\sqrt{d}-0.1)}{\sqrt{s}\,L\sqrt{s+1.6}}-0.3\,(\sqrt{d}-0.1)=46.727$$

inches.

These results differ very little from the velocities above mentioned. And if the velocity corresponding to a depth of 31 feet be deduced from that observed by Montanari in the Po Magra 10 feet deep on the supposition that they are in the proportion of $\sqrt{d}$, it will be found to be about $53\frac{1}{2}$ inches per second.

This comparison is therefore highly to the credit of the

Theory.

65 Highly to the credit of the theory.

the theory, and would have been very agreeable to M. de Buat, had he known it, as we hope it is to our readers.

We have collected many accounts of water pipes, and made the comparisons, and we flatter ourselves that these have enabled us to improve the theory. They shall appear in their proper place: and, we may just observe here, that the two-inch pipe, which we formerly spoke of as conveying the water to Dunbar, should have yielded only 25⅔ Scotch pints per minute by the formula, instead of 27; a small error.

We have, therefore, no hesitation in saying that this single formula of the uniform motion of water is one of the most valuable presents which natural science and the arts have received during the course of this century.

We hoped to have made this fortunate investigation of the chevalier de Buat still more acceptable to our readers by another table, which should contain the values of $\frac{307}{\sqrt{s}-L\sqrt{s}+1.6}$ ready calculated for every declivity that can occur in water pipes, canals, or rivers. Aided by this, which supersedes the only difficult part of the computation, a person could calculate the velocity for any proposed case in less than two minutes. But we have not been able to get it ready for its appearance in this article, but we shall not fail to give it when we resume the subject in the article *Water-Works*; and we hope even to give its results on a scale which may be carried in the pocket, and will enable the unlearned practitioner to solve any question with accuracy in half a minute.

We have now established in some measure a Theory of Hydraulics, by exhibiting a general theorem which expresses the relation of the chief circumstances of all such motions as have attained a state of permanency, in so far as this depends on the magnitude, form, and slope of the channel. This permanency we have expressed by the term train, saying that the stream is *in train*.

We proceed to consider the subordinate circumstances contained in this theorem; such as, 1st, The forms which nature or art may give to the bed of a running stream, and the manner of expressing this form in our theorem. 2d, The gradations of the velocity, by which it decreases in the different filaments, from the axis or most rapid filament to the border; and the connection of this with the mean velocity, which is expressed by our formula. 3d, Having acquired some distinct notions of this, we shall be able to see the manner in which undisturbed nature works in forming the beds of our rivers, the forms which she affects, and which we must imitate in all their local modifications, if we would secure that permanency which is the evident aim of all her operations. We shall here learn the mutual action of the current and its bed, and the circumstances which ensure the stability of both. These we may call the *regimen* or the *conservation* of the stream, and may say that it is *in regimen*, or *in conservation*. This has a relation, not to the dimensions and the slope alone, or to the accelerating force and the resistance arising from mere inertia; it respects immediately the tenacity of the bed, and is different from *the train*.

66 Regimen of streams what.

4th, These pieces of information will explain the deviation of rivers from the rectilineal course; the resistance occasioned by these deviations; and the circumstances on which the regimen of a winding stream depends.

Theory.

§ 1. *Of the Forms of the Channel.*

67 The semicircular form most favourable to motion,

The numerator of the fraction which expresses the velocity of a river in train has $\sqrt{d}$ for one of its factors. That form, therefore, is most favourable to the motion which gives the greatest value to what we have called the hydraulic mean depth d. This is the prerogative of the semicircle, and here d is equal to half the radius; and all other figures of the same area are the more favourable, as they approach nearer to a semicircle. This is the form, therefore, of all conduit pipes, and should be taken for aqueducts which are built of masonry. Ease and accuracy of execution, however, have made engineers prefer a rectangular form; but neither of these will do for a channel formed out of the ground.

68 but incompatible with regimen.

We shall soon see that the semicircle is incompatible with a regimen; and, if we proceed through the regular polygons, we shall find that the half hexagon is the only one which has any pretensions to a regimen; yet experience shows us, that even its banks are too steep for almost any soil. A dry earthen bank, not bound together by grass roots, will hardly stand with a slope of 45 degrees; and a canal which conveys running waters will not stand with this slope. Banks whose base is to their height as four to three will stand very well in moist soils, and this is a slope very usually given. This form is even affected in the spontaneous operations of nature, in the channels which she digs for the rills and rivulets in the higher and steeper grounds.

69 Banks that stand best.

This form has some mathematical and mechanical properties which intitle it to some further notice. Let ABEC (fig. 12.) be such a trapezium, and AHGC the rectangle of equal width and depth. Bisect HB and EG by the verticles FD and KI, and draw the verticals b B, e E. Because AH : HB = 3 : 4, we have AB = 5, and BD = 2, and FD = 3, and BD + DF = BA. From these premises it follows, that the trapezium ABEC has the same area with the rectangle; for HB being bisected in D, the triangles ACF, BCD are equal. Also the border ABEC, which is touched by the passing stream, is equal to FDIK. Therefore the mean depth which is the quotient of the area divided by the border, is the same in both; and this is the case, whatever is the width BE at the bottom, or even though there be no rectangle such as b BE e interposed between the slant sides.

Fig. 12.

70 Best form of a channel.

Of all rectangles, that whose breadth is twice the height, or which is half of a square, gives the greatest mean depth. If, therefore, FK be double of FD, the trapezium ABEC, which has the same area, will have the largest mean depth of any such trapezium, and will be the best form of a channel for conveying running waters. In this case, we have AC = 10, AH = 3, and BE = 2. Or we may say that the best form is a trapezium, whose bottom width is ⅖ of the depth, and whose extreme width is 1⅗. This form approaches very near to that which the torrents in the hills naturally dig for themselves in uniform ground, where their action is not checked by stones which they lay bare, or which they deposit in their course. This shows us, and it will be fully confirmed by and by, that the channel of a river

Theory.

is not a fortuitous thing, but has a relation to the consistency of the soil and velocity of the stream.

A rectangle, whose breadth is $\frac{4}{3}$ of the depth of water, will therefore have the same mean depth with a triangle whose surface width is $\frac{8}{3}$ of its vertical depth; for this is the dimensions when the rectangle b BE e is taken away.

Let A be the area of the section of any channel, w its width (when rectangular), and h its depth of water. Then what we have called its mean depth, or d, will be $\frac{A}{w+2h}, = \frac{w\,h}{w+2\,h}$. Or if q expresses the ratio of the width to the depth of a rectangular bed; that is, if $q=\frac{w}{h}$, we have a very simple and ready expression for the mean depth, either from the width or depth. For $d=\frac{w}{q+2}$, or $d=\frac{q\,h}{q+2}$.

Therefore, if the depth were infinite, and the width finite, we should have $d=\frac{w}{2}$; or if the width be infinite, and the depth finite, we have $d=h$. And these are the limits of the values of d; and therefore in rivers whose width is always great in comparison of the depth, we may without much error take their real depth for their hydraulic mean depth. Hence we derive a rule of easy recollection, and which will at all times give us a very near estimate of the velocity and expence of a running stream, viz. *that the velocities are nearly as the square roots of the depths.* We find this confirmed by many experiments of Michelotti.

71 Estimate of the expence of a running stream.

Also, when we are allowed to suppose this ratio of the velocities and depths, that is, in a rectangular canal of great breadth and small depth, we shall have the quantities discharged nearly in the proportion of the cubes of the velocities. For the quantity discharged d is as the velocity and area jointly, that is, as the height and velocity jointly, because when the width is the same the area is as the height. Therefore, we have $d \doteqdot h\,v$—. But, by the above remark, $h \doteqdot v^2$. Therefore, $d \doteqdot v^3$; and this is confirmed by the experiments of Bossut, vol. ii. 236. Also, because d is as $v\,h$, when w is constant, and by the above remark (allowable when w is very great in proportion to h) v is as $\sqrt{h}$, we have d as $h\sqrt{h}$, or $h^{\frac{3}{2}}$, or the squares of the discharges proportional to the cubes of the heights in rectangular beds, and in their corresponding trapeziums.

72 Rules for finding the dimensions,

1. Knowing the mean depth and the proportion of the width and real depth, we can determine the dimensions of the bed, and we have $w=q\,d+2\,d$, and $h=d+\frac{2d}{q}$.

2. If we knew the area and mean depth, we can in like manner find the dimensions, that is, w and h; for $A=w\,h$, and $d=\frac{w\,h}{w+2h}$; therefore $w=\pm\sqrt{\frac{A^2}{4d^2}-2\,A}+\frac{A}{2d}$.

3. If d be known, and one of the dimensions be given, we can find the other; for $d=\frac{w\,h}{w+2\,h}$ gives $w=\frac{2\,h\,d}{h-d}$, and $h=\frac{w\,d}{w-2\,d}$.

4. If the velocity V and the slope S for a river in train be given, we can find the mean depth; for $V=\left(\frac{297}{\sqrt{S}-L\sqrt{S+1.6}}-0.3\right)(\sqrt{d}-0.1.)$. Whence we deduce $\sqrt{d}-0.1=\frac{V}{\frac{297}{\sqrt{S}-L\sqrt{S+1.6)}}-0.3}$, and $\sqrt{d}=$ to this quantity $+0.1$. 73 mean depth,

5. We can deduce the slope which will put in train a river whose channel has given dimensions. We make $\frac{297\,(\sqrt{d}-0.1)}{V+0.3\,(\sqrt{d}-0.1)}=\sqrt{S}$. This should be $=\sqrt{S}-L\sqrt{S+1.6}$, which we correct by trials. which will be exemplified when we apply these doctrines to practice. 74 slope.

Having thus established the relation between the different circumstances of the form of the channel to our general formula, we proceed to consider,

§ 2. *The Gradations of Velocity from the middle of the Stream to the sides.*

The knowledge of this is necessary for understanding the regimen of a river; for it is the velocity of the filaments in contact with the bed which produces any change in it, and occasions any preference of one to another, in respect of regimen or stability. Did these circumstances not operate, the water, true to the laws of hydraulics, and confined within the bounds which have been assigned them, would neither enlarge nor diminish the area of the channel. But this is all that we can promise of waters perfectly clear, running in pipes or hewn channels. But rivers, brooks, and smaller streams, carry along waters loaded with mud or sand; which they deposit whe ever their velocity is checked; and they tear up, on the other hand, the materials of the channel wherever their velocity is sufficiently great. Nature, indeed, aims continually at an equilibrium, and works without ceasing to perpetuate her own performance, by establishing an equality of action and reaction, and proportioning the forms and direction of the motions to her agents, and to local circumstances. Her work is slow but unceasing; and what she cannot accomplish in a year she will do in a century. The beds of our rivers have acquired some stability, because they are the labour of ages; and it is to time that we owe those deep and wide valleys which receive and confine our rivers in channels, which are now consolidated, and with slopes which have been gradually moderated, so that they no longer either ravage our habitations or confound our boundaries. Art may imitate nature, and by directing her operations (which she still carries on according to her own imprescriptible laws) according to our views, we can hasten her progress, and accomplish our purpose, during the short period of human life. But we can do this only by studying the unalterable laws of mechanism. These are presented to us by spontaneous nature. Frequently we remain ignorant of their foundation: but it is not necessary for the prosperity of the subject that he have the talents of the senator; he can profit by the statute without understanding its grounds. It is so in the present instance. We have not as yet been able to infer the law of retardation observed

75 Nature to be imitated in making artificial streams.

Theory.

observed in the filaments of a running stream from any sound mechanical principle. The problem, however, does not appear beyond our powers, if we assume, with Sir Isaac Newton, that the velocity of any particular filament is the arithmetical mean between those of the filaments immediately adjoining. We may be assured, that the filament in the axis of an inclined cylindrical tube, of which the current is in train, moves the fastest, and that all those in the same circumference round it are those which glide along the pipe. We may affirm the same thing of the motions in a semi-cylindrical inclined channel conveying an open stream. But even in these we have not yet demonstrated the ratio between the extreme velocities, nor in the different circles. This must be decided experimentally.

And here we are under great obligations to Mr de Buat. He has compared the velocity in the axis of a prodigious number and variety of streams, differing in size, form, slope, and velocity, and has computed in them all the mean velocity, by measuring the quantities of water discharged in a given time. His method of measuring the bottom velocity was simple and just. He threw in a gooseberry, as nearly as possible of the same specific gravity with the water. It was carried along the bottom almost without touching it. *See* RESISTANCE *of Fluids*, N° 67.

76 Laws of the velocities of different portions of the stream.

He discovered the following laws: 1. In small velocities the velocity in the axis is to that at the bottom in a ratio of considerable inequality. 2. This ratio diminishes as the velocity increases, and in very great velocities approaches to the ratio of equality. 3. What was most remarkable was, that neither the magnitude of the channel, nor its slope, had any influence in changing this proportion, while the mean velocity remained the same. Nay, though the stream ran on a channel covered with pebbles or coarse sand, no difference worth minding was to be observed from the velocity over a polished channel. 4. And if the velocity in the axis is constant, the velocity at the bottom is also constant, and is not affected by the depth of water or magnitude of the stream. In some experiments the depth was thrice the width, and in others the width was thrice the depth. This changed the proportion of the magnitude of the section to the magnitude of the rubbing part, but made no change on the ratio of the velocities. This is a thing which no theory could point out.

77 Mean velocity.

Another most important fact was also the result of his observation, viz. that *the mean velocity in any pipe or open stream is the arithmetical mean between the velocity in the axis and the velocity at the sides of a pipe or bottom of an open stream.* We have already observed, that the ratio of the velocity in the axis to the velocity at the bottom diminished as the mean velocity increased. This variation he was enabled to express in a very simple manner, so as to be easily remembered, and to enable us to tell any one of them by observing another.

If we take unity from the square root of the superficial velocity, expressed in inches, the square of the remainder is the velocity at the bottom; and the mean velocity is the half sum of these two. Thus, if the velocity in the middle of the stream be 25 inches per second, its square root is five; from which if we take unity, there remains four. The square of this, or 16, is the velocity at the bottom, and $\frac{25+16}{2}$, or $20\frac{1}{2}$, is the mean velocity.

This is a very curious and most useful piece of information. The velocity in the middle of the stream is the easiest measured of all, by any light small body floating down it; and the mean velocity is the one which regulates the train, the discharge, the effect on machines, and all the most important consequences.

78 expressed by a formula.

We may express this by a formula of most easy recollection. Let V be the mean velocity, v the velocity in the axis, and u the velocity at the bottom; we have $u = \overline{\sqrt{v}-1}^2$, and $V = \frac{v+u}{2}$.

Also $v = (\sqrt{V-\frac{1}{4}} + \frac{1}{2})^2$, and $v = (\sqrt{u} + 1)^2$.

$V = (\sqrt{v}-\frac{1}{2})^2 + \frac{1}{4}$, and $V = (\sqrt{u} + \frac{1}{2})^2 + \frac{1}{4}$.

$u = (\sqrt{v}-1)^2$ and $u = (\sqrt{V-\frac{1}{4}}-\frac{1}{2})^2$.

Also $v-u = 2\sqrt{V-\frac{1}{4}}$ and $v-V$, or $V-u$, $= \sqrt{V-\frac{1}{4}}$: that is, the difference between these velocities increases in the ratio of the square roots of the mean velocities diminished by a small constant quantity.

This may perhaps give the mathematicians some help in ascertaining the law of degradation from the axis to the sides. Thus, in a cylindrical pipe, we may conceive the current as consisting of an infinite number of cylindrical shells sliding within each other like the draw tubes of a spy-glass. Each of these is in equilibrio, or as much accelerated by the one within it as it is retarded by the one without; therefore as the *momentum* of each diminishes in the proportion of its diameter (the thickness being supposed the same in all), the velocity of separation must increase by a certain law from the sides to the axis. The magnitude of the small constant quantity here spoken of seems to fix this law.

79 Place of the mean velocity not discovered.

The place of the mean velocity could not be discovered with any precision. In moderate velocities it was not more than one-fourth or one-fifth of the depth distant from the bottom. In very great velocities it was sensibly higher, but never in the middle of the depth.

The knowledge of these three velocities is of great importance. The superficial velocity is easily observed; hence the mean velocity is easily computed. This multiplied by the section gives the expence; and if we also measure the expanded border, and then obtain the mean depth (or $\sqrt{d}$), we can, by the formula of uniform motion, deduce the slope, or, knowing the slope, we can deduce any of the other circumstances.

The following table of these three velocities will save the trouble of calculation in one of the most frequent questions of hydraulics.

80 Table of the three principal velocities.

Velocity in Inches.			Velocity in Inches.			Velocity in Inches.		
Surface.	Bottom.	Mean.	Surface.	Bottom.	Mean.	Surface.	Bottom.	Mean.
1	0.000	0.5	34	23.339	28.660	67	51.639	59.319
2	0.172	1.081	35	24.167	29 583	68	52.505	60.252
3	0.537	1.768	36	25.	30.5	69	53.392	61.196
4	1.	2.5	37	25.827	31.413	70	54.273	62.136
5	1.526	3.263	38	26.667	32.338	71	55.145	63.072
6	2.1	4.050	39	27.51	33.255	72	56.025	64.012
7	2.709	4.854	40	28.345	34.172	73	56.862	64.932
8	3.342	5.67	41	29.192	35.096	74	57.790	65.895
9	4.	6.5	42	30.030	36.015	75	58.687	66.843
10	4.674	7.337	43	30.880	36.940	76	59.568	67.784
11	5.369	8.184	44	31.742	37.871	77	60.451	68.725
12	6.071	9.036	45	32.581	38.790	78	61.340	69.670
13	6.786	9 893	46	33.432	39.716	79	62.209	70.605
14	7.553	10.756	47	34.293	40 646	80	63.107	71.553
15	8.254	11.622	48	35.151	41.570	81	64.	72.5
16	9.	12.5	49	36.	42.5	82	64.883	73.441
17	9.753	13.376	50	36.857	43.428	83	65.780	74.390
18	10.463	14.231	51	37.712	44.356	84	66.651	75.325
19	11.283	15.141	52	38.564	45.282	85	67.568	76.284
20	12.055	16.027	53	39.438	46.219	86	68.459	77.229
21	12.674	16.837	54	40.284	47.142	87	69.339	78.169
22	13.616	17 808	55	41.165	48 082	88	70.224	79.112
23	14.402	18 701	56	42.016	49.008	89	71.132	80.066
24	15.194	19.597	57	42.968	49.984	90	72.012	81.006
25	16.	20.5	58	43.771	50.886	91	72.915	81.957
26	16.802	21.401	59	44.636	51.818	92	73.788	82.894
27	17.606	22.303	60	45.509	52.754	93	74.719	83.859
28	18.421	23 210	61	46.376	53.688	94	75.603	84.801
29	19.228	24.114	62	47.259	54.629	95	76.51	85.755
30	20.044	25.022	63	48.136	55.568	96	77.370	86.685
31	20.857	25.924	64	49.	56.5	97	78.305	87.652
32	21.678	26.839	65	49.872	57.136	98	79.192	88.596
33	22.506	27.753	66	50.751	58.376	99	80.120	89.56
						100	81.	90.5

The knowledge of the velocity at the bottom is of the greatest use for enabling us to judge of the action of the stream on its bed; and we shall now make some observations on this particular.

81 Operation of the stream on its bed,

Every kind of soil has a certain velocity consistent with the stability of the channel. A greater velocity would enable the waters to tear it up, and a smaller velocity would permit the deposition of more moveable materials from above. It is not enough, then, for the stability of a river, that the accelerating forces are so adjusted to the size and figure of its channel that the current may be in train: it must also be in equilibrio with the tenacity of the channel.

We learn from observation, that a velocity of three inches per second at the bottom will just begin to work upon fine clay fit for pottery, and however firm and compact it may be, it will tear it up. Yet no beds are more stable than clay when the velocities do not exceed this: for the water soon takes away the impalpable particles of the superficial clay, leaving the particles of sand sticking by their lower half in the rest of the clay, which they now protect, making a very permanent bottom, if the stream does not bring down gravel or coarse sand, which will rub off this very thin crust, and allow another layer to be worn off; a velocity of six inches will lift fine sand; eight inches will lift sand as coarse as linseed; 12 inches will sweep along fine gravel; 24 inches will roll along rounded pebbles an inch diameter; and it requires three feet per second at the bottom to sweep along shivery angular stones of the size of an egg.

82 How carried on.

The manner in which unwearied nature carries on some of these operations is curious, and deserves to be noticed a little. All must recollect the narrow ridges or wrinkles which are left on the sand by a temporary fresh or stream. They are observed to lie across the stream, and each ridge consists of a steep face AD, BF (fig. 13.) which looks down the stream, and a gentler slope DB, FC, which connects this with the next ridge. As the stream comes over the first steep AD, it is directed almost perpendicularly against the point E immediately below D, and thus it gets hold of a particle of coarse sand, which it could not have detached from the rest had it been moving parallel to the surface of it. It easily rolls it up the gentle slope EB; arrived there, the particle tumbles over the ridge, and lies close at the bottom of it at F, where it is protected by the little eddy, which is formed in the very angle; other particles

Fig. 13.

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ticles, lying about E, are treated in the same way, and, tumbling over the ridge B, cover the first particle, and now protect it effectually from any farther disturbance. The same operation is going on at the bottom of each ridge. The brow or steep of the ridge gradually advances down the stream, and the whole set change their places, as represented by the dotted line *a d b f*; and after a certain time the particle which was deposited in F is found in an unprotected situation, as it was in E, and it now makes another step down the stream.

The Abbé Bossut found, that when the velocity of the stream was just sufficient for lifting the sand (and a small excess hindered the operation altogether) a ridge advanced about 20 feet in a day.

Since the current carries off the most moveable matters of the channel, it leaves the bottom covered with the remaining coarse sand, gravel, pebbles, and larger stones. To these are added many which come down the stream while it is more rapid, and also many which roll in from the sides as the banks wear away. All these form a bottom much more solid and immoveable than a bottom of the medium soil would have been. But this does not always maintain the channel in a permanent form; but frequently occasions great changes, by obliging the current, in the event of any sudden fresh or swell, to enlarge its bed, and even to change it altogether, by working to the right and to the left, since it cannot work downwards. It is generally from such accumulation of gravel and pebbles in the bottom of the bed that rivers change their channels.

It remains to ascertain, in absolute measures, the force which a current really exerts in attempting to drag along with it the materials of its channel; and which *will* produce this effect unless resisted by the inertia of these materials. It is therefore of practical importance to know this force.

Nor is it abstruse or difficult. For when a current is in train, the accelerating force is in equilibrio with the resistance, and is therefore its immediate measure. Now this accelerating force is precisely equal to the weight of the body of water in motion multiplied by the fraction which expresses the slope. The mean depth being equal to the quotient of the section divided by the border, the section is equal to the product of the mean depth multiplied by the border. Therefore, calling the border b, and the mean depth d, we have the section $=db$. The body of water in motion is therefore dbs (because s was the slant length of a part whose difference of elevation is 1), and the accelerating forces is $dbs \times \frac{1}{s}$, or db. But if we would only consider this resistance as corresponding to an unit of the length of the channel, we must divide the quantity db by s, and the resistance is then $\frac{db}{s}$. And if we would consider the resistance only for an unit of the border, we must divide this expression by b; and thus this resistance (taking an inch for the unit) will be expressed for one square inch of the bed by the weight of a bulk of water which has a square inch for its base, and $\frac{d}{s}$ for its height. And lastly, if E be taken for any given superficial extent of the channel or bed, and F the obstruction, which we consider as a sort of friction, we shall have $F=\frac{Ed}{s}$.

Thus, let it be required to determine in pounds the resistance or friction on a square yard of a channel whose current is in train, which is 10 feet wide, four feet deep, and has a slope of one foot in a mile. Here E is nine feet. Ten feet width and four feet depth give a section of 40 feet. The border is 18 feet. Therefore $d=\frac{40}{18}=2.1111$, and s is 5280. Therefore the friction is the weight of a column of water whose base in nine feet, and height $\frac{2.1111}{52.80}$, or nearly $3\frac{6}{10}$ ounces avoirdupois.

§ 3. *Settlement of the Beds of Rivers.*

83 Simplicity and wisdom displayed in the conduct of rivers.

He who looks with a careless eye at a map of the world, is apt to consider the rivers which ramble over its surface as a chance-medley disposition of the drainers which carry off the waters. But it will afford a most agreeable object to a considerate and contemplative mind to take it up in this very simple light; and having considered the many ways in which the drenched surface might have been cleared of the superfluous waters, to attend particularly to the very way which nature has followed. In following the troubled waters of a mountain torrent, or the pure streams which trickle from their bases, till he sees them swallowed up in the ocean, and in attending to the many varieties in their motions, he will be delighted with observing how the simple laws of mechanism are made so fruitful in good consequences, both by modifying the motions of the waters themselves, and also by inducing new forms on the surface of the earth, fitted for re-acting on the waters, and producing those very modifications of their motions which render them so beneficial. The permanent beds of rivers are by no means fortuitous gutters hastily scooped out by dashing torrents; but both they and the valleys through which they flow are the patient but unceasing labours of nature, prompted by goodness and directed by wisdom.

Whether we trace a river from the torrents which collect the superfluous waters of heaven, or from the springs which discharge what would otherwise be condemned to perpetual inactivity, each feeder is but a little rill which could not ramble far from its scanty source among growing plants and absorbent earth, without being sucked up and evaporated, did it not meet with other rills in its course. When united they form a body of water still inconsiderable, but much more able, by its bulk, to overcome the little obstacles to its motion; and the rivulet then moves with greater speed, as we have now learned. At the same time, the surface exposed to evaporation and absorption is diminished by the union of the rills. Four equal rills have only the surface of two when united. Thus the portion which escapes arrestment, and travels downward, is continually increasing. This is a happy adjustment to the other operations of nature. Were it otherwise, the lower and more valuable countries would be loaded with the passing waters in addition to their own surplus rains, and the immediate neighbourhood of the sea would be almost covered by the drains of the interior countries.

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countries. But, fortunately, those passing waters occupy less room as they advance, and by this wise employment of the most simple means, not only are the superfluous waters drained off from our fertile fields, but the drains themselves become an useful part of the country by their magnitude. They become the habitation of a prodigious number of fishes, which share the Creator's bounty; and they become the means of mutual communication of all the blessings of cultivated society. The vague ramblings of the rivers scatter them over the face of the country, and bring them to every door. It is not even an indifferent circumstance, that they gather strength to cut out deep beds for themselves. By this means they cut open many springs. Without this, the produce of a heavy shower would make a swamp which would not dry up in many days. And it must be observed, that the same heat which is necessary for the vigorous growth of useful plants will produce a very copious evaporation. This must return in showers much too copious for immediate vegetation, and the overplus would be destructive. Is it not pleasant to contemplate this adjustment of the great operations of nature, so different from each other, that if chance alone directed the detail, it was almost an infinite odds that the earth would be uninhabitable?

84 Their effect on the countries through which they pass.

But let us follow the waters in their operations, and note the face of the countries through which they flow: attending to the breadth, the depth, and the slope of the vallies, we shall be convinced that their present situation is extremely different from what it was in ancient days; and that the valleys themselves are the works of the rivers, or at least of waters which have descended from the heights, loaded with all the lighter matters which they were able to bring away with them. The rivers flow now in beds which have a considerable permanency; but this has been the work of ages. This has given stability, both by filling up and smoothing the valleys, and thus lessening the changing causes, and also by hardening the beds themselves which are now covered with aquatic plants, and lined with the stones, gravel, and coarser sand, out of which all the lighter matters have been washed away.

The surface of the high grounds is undergoing a continual change; and the ground on which we now walk is by no means the same which was trodden by our remote ancestors. The showers from heaven carry down into the vallies, or sweep along by the torrents, a part of the soil which covers the heights and steeps. The torrents carry this soil into the brooks, and these deliver part of it into the great rivers, and these discharge into the sea this fertilizing fat of the earth, where it is swallowed up, and forever lost for the purposes of vegetation. Thus the hillocks lose of their height, the vallies are filled up, and the mountains are laid bare, and show their naked precipices, which formerly were covered over with a flesh and skin, but now look like the skeleton of this globe. The low countries, raised and nourished for some time by the substance of the high lands, will go in their turn to be buried in the ocean: and then the earth, reduced to a dreary flat, will become an immense uninhabitable mass. This catastrophe is far distant, because this globe is in its youth, but it is not the less certain; and the united labours of the human race could not long protract the term.

But, in the mean time, we can trace a beneficent purpose, and a nice adjustment of seemingly remote circumstances. The grounds near the sources of all our rivers are indeed gradually stripped of their most fertile ingredients. But had they retained them for ages, the sentient inhabitants of the earth, or at least the nobler animals, with man at their head, would not have derived much advantage from it. The general laws of nature produce changes in our atmosphere which must ever render these great elevations unfruitful. That genial warmth, which is equally necessary for the useful plant as for the animal which lives on it, is confined to the lower grounds. The earth, which on the top of Mount Hæmus could only bring forth moss and dittany, when brought into the gardens of Spalatro, produced pot-herbs so luxuriant, that Dioclesian told his colleague Maximian that he had more pleasure in their cultivation than the Roman empire could confer. Thus nature not only provides us manure, but conveys it to our fields. She even keeps it safe in store for us till it shall be wanted. The tracts of country which are but newly inhabited by man, such as great part of America, and the newly discovered regions of Terra Australis, are still almost occupied by marshes and lakes, or covered with impenetrable forests; and they would remain long enough in this state, if population, continually increasing, did not increase industry, and multiply the hands of cultivators along with their necessities. The Author of Nature was alone able to form the huge ridges of the mountains, to model the hillocks and the valleys, to mark out the courses of the great rivers, and give the first trace to every rivulet; but has left to man the task of draining his own habitation and the fields which are to support him, because this is a task not beyond his powers. It was therefore of immense advantage to him that those parts of the globe into which he has not yet penetrated should remain covered with lakes, marshes, and forests, which keep in store the juice of the earth, which the influence of the air and the vivifying warmth of the sun would have expended long ere now in useless vegetation, and which the rains of heaven would have swept into the sea, had they not been thus protected by their situation or their cover. It is therefore the business of man to open up these mines of hoarded wealth, and to thank the Author of all good, who has thus husbanded them for his use, and left them as a rightful heritage for those of after days.

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85 Benificence displayed in the changes they produce.

The earth had not in the remote ages, as in our day, those great canals, those capacious voiders, always ready to drain off the rain waters (of which only part is absorbed by the thirsty ground), and the pure waters of the springs from the foot of the hills. The rivers did not then exist, or were only torrents, whose waters, confined by the gullies and glens, are searching for a place to escape. Hence arise those numerous lakes in the interior of great continents, of which there are still remarkable relicks in North America, which in process of time will disappear, and become champaign countries. The most remote from the sea, unable to contain its waters, finds an issue through some gorge of the hills, and pours over its superfluous waters into a lower bason, which, in its turn, discharges its contents into another, and the last of the chain delivers its waters by a river into the ocean. The communication was originally begun by a simple overflowing at the lowest part of the margin. This made a torrent, which quickly

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quickly deepened its bed; and this circumstance increasing its velocity, as we have seen, would extend this deepening backward to the lake, and draw off more of its waters. The work would go on rapidly at first, while earth and small stones only resisted the labours of nature; but these being washed away, and the channel hollowed out to the firm rock on all sides, the operation must go on very slowly, till the immense cascade shall undermine what it cannot break off, and then a new discharge will commence, and a quantity of flat ground will emerge all round the lake. The torrent, in the mean time, makes its way down the country, and digs a canal, which may be called the first sketch of a river, which will deepen and widen its bed continually. The water of several basons united, and running together in a great body, will (according to the principles we have established) have a much greater velocity, with the same slope, than those of the lakes in the interior parts of the continent; and the sum of them all united in the bason next the sea, after having broken through its natural mound, will make a prodigious torrent, which will dig for itself a bed so much the deeper as it has more slope and a greater body of waters.

The formation of the first valleys, by cutting open many springs which were formerly concealed under ground, will add to the mass of running waters, and contribute to drain off the waters of these basons. In course of time many of them will disappear, and flat valleys among the mountains and hills are the traces of their former existence.

When nature thus traces out the courses of future rivers, it is to be expected that those streams will most deepen their channels which in their approach to the sea receive into their bed the greatest quantities of rain and spring waters, and that towards the middle of the continent they will deepen their channels less. In these last situations the natural slope of the fields carries the rain-water, rills, and the little rivulets from the springs, to seek their ways to the rivers. The ground can sink only by the flattening of the hills and high grounds; and this must proceed with extreme slowness, because it is only the gentle, though incessant work of the rains and springs. But the rivers, increasing in bulk and strength, and of necessity flowing over every thing, form to themselves capacious beds in a more yielding soil, and dig them even to the level of the ocean.

86 Beds of rivers not formed in one inclined plane. Fig. 14.

The beds of rivers by no means form themselves in one inclined plane. If we should suppose a canal AB (fig. 14.) perfectly straight and horizontal at B, where it joins with the sea, this canal would really be an inclined channel of greater and greater slope as it is farther from B. This is evident; because gravity is directed towards the centre of the earth, and the angle CAB contained between the channel and the plumb-line at A is smaller than the similar angle CDB; and consequently the inclination to the horizon is greater in A than in D. Such a canal therefore would make the bed of a river; and some have thought that this was the real form of nature's work; but the supposition is a whim, and it is false. No river has a slope at all approaching to this. It would be eight inches declivity in the mile next the ocean, 24 inches in the second mile, 40 inches in the third, and so on in the duplicate ratio (for the whole elevation) of the distances from the sea. Such a river would quickly tear up its bed in the mountains (were there any grounds high enough to receive it), and, except its first cascade, would soon acquire a more gentle slope. But the fact is, and it is the result of the imprescriptible laws of nature, that the continued track of a river is a succession of inclined channels, whose slope diminishes by steps as the river approaches to the sea. It is not enough to say that this results from the natural slope of the countries through which it flows, which we observe to increase in declivity as we go to the interior parts of the continent. Were it otherwise, the equilibrium at which nature aims in all her operations would still produce the gradual diminution of the slope of rivers. Without it they could not be in a permanent train.

87 How the permanent course of a river is established. Fig. 15.

That we may more easily form a notion of the manner in which the permanent course of a river is established, let us suppose a stream or rivulet *s a* (fig. 15.) far up the country, makes its way through a soil perfectly uniform to the sea, taking the course *s a b c d e f*, and receiving the *permanent additions* of the streams *g a*, *h b*, *i c*, *k d*, *l e*, and that its velocity and slope in all its parts are so suited to the tenacity of the soil and magnitude of its section, that neither do its waters during the annual freshes tear up its banks or deepen its bed, nor do they bring down from the high lands materials which they deposit in the channel in times of smaller velocity. Such a river may be said to be in a *permanent state*, to be in *conservation*, or to have *stability*. Let us call this state of a river its REGIMEN, denoting by the word the proper adjustment of the velocity of the stream to the tenacity of the channel. The velocity of its regimen must be the same throughout, because it is this which regulates its action on the bottom, which is the same from its head to the sea. That its bed may have stability, the mean velocity of the current must be constant, notwithstanding the inequality of discharge through its different sections by the brooks which it receives in its course, and notwithstanding the augmentation of its section as it approaches the sea.

On the other hand, it behoved this exact regimen to commence at the mouth of the river, by the working of the whole body of the river, in concert with the waters of the ocean, which always keep within the same limits, and make the ultimate level invariable. This working will begin to dig the bed, giving it as little breadth as possible: for this working consists chiefly in the efforts of falls and rapid streams, which arise of themselves in every channel which has too much slope. The bottom deepens, and the sides remain very steep, till they are undermined and crumble down; and being then diluted in the water, they are carried down the stream and deposited where the ocean checks its speed. The banks crumble down anew, the valley or hollow forms; but the section, always confined to its bottom, cannot acquire a great breadth, and it retains a good deal of the form of the trapezium formerly mentioned. In this manner does the regimen begin to be established from *f* to *e*.

With respect to the next part *d e*, the discharge or produce is diminished by the want of the brook *l e*. It must take a similar form, but its area will be diminished in order that its velocity may be the same: and its mean depth *d* being less than in the portion *e f* below, the slope must be greater. Without these conditions we could not have the uniform velocity, which the assumed permanency

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permanency in an uniform soil naturally supposes. Reasoning after the same manner for all the portions *c d, b c, a b, s a*, we see that the regimen will be successively established in them, and that the slope necessary for this purpose will be greater as we approach the river head. The vertical section or profile of the course of the river *s a b c d e f* will therefore resemble the line SABCDEF which is sketched below, having its different parts variously inclined to the horizontal line HF.

88 This process of nature

Such is the process of nature to be observed in every river on the surface of the globe. It long appeared a kind of puzzle to the theorists; and it was this observation of the increasing, or at least this continued velocity with smaller slope, as the rivers increased by the addition of their tributary streams, which caused Guglielmini to have recourse to his new principle, the energy of deep waters. We have now seen in what this energy consists. It is only a greater quantity of motion remaining in the middle of a great stream of water after a quantity has been retarded by the sides and bottom; and we see clearly, that since the addition of a new and perhaps an equal stream does not occupy a bed of double surface, the proportion of the retardations to the remaining motion must continually diminish as a river increases by the addition of new streams. If therefore the slope were not diminished, the regimen would be destroyed, and the river would dig up its channel. We have a full confirmation of this in the many works which have been executed on the Po, which runs with rapidity through a rich and yielding soil. About the year 1600, the waters of the Panaro, a very considerable river, were added to the Po Grande; and although it brings along with it in its freshes a vast quantity of sand and mud, it has greatly deepened the whole Tronco di Venezia from the confluence to the sea. This point was clearly ascertained by Manfredi about the 1720, when the inhabitants of the valleys adjacent were alarmed by the project of bringing in the waters of the Rheno, which then ran through the Ferrarese. Their fears were overcome, and the Po Grande continues to deepen its channel every day with a prodigious advantage to the navigations; and there are several extensive marshes which now drain off by it, after having been for ages under water: and it is to be particularly remarked, that the Rheno is the foulest river in its freshes of any in that country. We insert this remark, because it may be of great practical utility, as pointing out a method of preserving and even improving the depth of rivers or drains in flat countries, which is not obvious, and rather appears improper: but it is strictly conformable to a true theory, and to the operations of nature, which never fails to adjust every thing so as to bring about an equilibrium. Whatever the declivity of the country may have been originally, the regimen begins to be settled at the mouths of the rivers, and the slopes are diminished in succession as we recede from the coast. The original slopes inland may have been much greater; but they will (when busy nature has completed her work) be left somewhat, and only so much greater, that the velocity may be the same notwithstanding the diminution of the section and mean depth.

89 confirmed by example.

90 Effects of freshes.

Freshes will disturb this methodical progress relative only to the successive permanent additions; but their effects chiefly accelerate the deepening of the bed, and the diminution of the slope, by augmenting the velocity during their continuance. But when the regimen of the permanent additions is once established, the freshes tend chiefly to widen the bed, without greatly deepening it: for the aquatic plants, which have been growing and thriving during the peaceable state of the river, are now laid along, but not swept away, by the freshes, and protect the bottom from their attacks; and the stones and gravel, which must have been left bare in a course of years, working on the soil, will also collect in the bottom, and greatly augment its power of resistance; and even if the floods should have deepened the bottom some small matter, some mud will be deposited as the velocity of the freshes diminishes, and this will remain till the next flood.

We have supposed the soil uniform through the whole course: This seldom happens; therefore the circumstances which insure permanency, or the regimen of a river, may be very different in its different parts and in different rivers. We may say in general, that the farther that the regimen has advanced up the stream in any river, the more slowly will it convey its waters to the sea.

There are some general circumstances in the motion of rivers which it will be proper to take notice of just now, that they may not interrupt our more minute examination of their mechanism, and their explanations will then occur of themselves as corollaries of the propositions which we shall endeavour to demonstrate.

91 In narrow valleys rivers adhere to the steepest hills.

In a valley of small width the river always occupies the lowest part of it; and it is observed, that this is seldom in the middle of the valley, and is nearest to that side on which the slope from the higher grounds is steepest, and this without regard to the line of its course. The river generally adheres to the steepest hills, whether they advance into the plain or retire from it. This general feature may be observed, over the whole globe. It is divided into compartments by great ranges of mountains; and it may be observed, that the great rivers hold their course not very far from them, and that their chief feeders come from the other side. In every compartment there is a swell of the low country at a distance from the bounding ridge of mountains; and on the summit of this swell the principal feeders of the great river have their sources.

The name *valley* is given with less propriety to these immense regions, and is more applicable to tracts of champaign land which the eye can take in at one view. Even here we may observe a resemblance. It is not always in the very lowest part of this valley that the river has its bed; although the waters of the river flow in a channel below its immediate banks, these banks are frequently higher than the grounds at the foot of the hills. This is very distinctly seen in Lower Egypt, by means of the canals which are carried backward from the Nile for accelerating its fertilizing inundations. When the calishes are opened to admit the waters, it is always observed that the districts most remote are the first covered, and it is several days before the immediately adjoining fields partake of the blessing. This is a consequence of that general opinion of nature by which the valleys are formed. The river in its floods is loaded with mud, which it retains as long as it rolls rapidly along its limited bed, tumbling its waters over and over, and taking up in every spot as much as it deposits: but as soon as it overflows its banks, the very

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very enlargement of its section diminishes the velocity of the water; and it may be observed still running in the track of its bed with great velocity, while the waters on each side are stagnant at a very small distance: Therefore the water, on getting over the banks, must deposit the heaviest, the firmest, and even the greatest part of its burden, and must become gradually clearer as it approaches the hills. Thus a gentle slope is given to the valley in a direction which is the reverse of what one would expect. It is, however, almost always the case in wide valleys, especially if the great river comes through a soft country. The banks of the brooks and ditches are observed to be deeper as they approach the river, and the merely superficial drains run backwards from it.

92 The bed of rivers is enlarged near the sea,

We have already observed, that the enlargement of the bed of a river, in its approach to the sea, is not in proportion to the increase of its waters. This would be the case even if the velocity continued the same: and therefore, since the velocity increases, in consequence of the greater energy of a large body of water, which we now understand distinctly, a still smaller bed is sufficient for conveying all the water to the sea.

93 the water being checked by the tides of the ocean.

This general law is broken, however, in the immediate neighbourhood of the sea; because in this situation the velocity of the water is checked by the passing flood-tides of the ocean. As the whole waters must still be discharged, they require a larger bed, and the enlargement will be chiefly in width. The sand and mud are deposited when the motion is retarded. The depth of the mouth of the channel is therefore diminished. It must therefore become wider. If this be done on a coast exposed to the force of a regular tide, which carries the waters of the ocean across the mouth of the river, this regular enlargement of the mouth will be the only consequence, and it will generally widen till it washes the foot of the adjoining hills; but if there be no tide in the sea, or a tide which does not set across the mouth of the river, the sands must be deposited at the sides of the opening, and become additions to the shore, lengthening the mouth of the channel. In this sheltered situation, every trivial circumstance will cause the river to work more on particular parts of the bottom, and deepen the channel there. This keeps the mud suspended in such parts of the channel, and it is not deposited till the stream has shot farther out into the sea. It is deposited on the sides of those deeper parts of the channel, and increases the velocity in them, and thus still farther protracts the deposition. Rivers so situated will not only lengthen their channels, but will divide them, and produce islands at their mouths. A bush, a tree torn up by the roots by a mountain torrent, and floated down the stream, will thus inevitably produce an island; and rivers in which this is common will be continually shifting their mouths. The Mississippi is a most remarkable instance of this. It has a long course through a rich soil, and disembogues itself into the bay of Mexico, in a place where there is no *passing tide*, as may be seen by comparing the hours of high water in different places. No river that we know carries down its stream such numbers of rooted-up trees; they frequently interrupt the navigation, and render it always dangerous in the night-time. This river is so beset with flats and shifting sands at its mouth, that the most experienced pilots are puzzled; and it has protruded its channel above 50 miles in the short period that we have known it. The discharge of the Danube is very similar: so is that of the Nile; for it is discharged into a still corner of the Mediterranean. It may now be said to have acquired considerable permanency; but much of this is owing to human industry, which strips it as much as possible of its subsideable matter. The Ganges too is in a situation pretty similar, and exhibits similar phenomena. The Maragnon might be noticed as an exception; but it is not an exception. It has flowed very far in a level bed, and its waters come pretty clear to Para; but besides, there is a strong transverse tide, or rather current, at its mouth, setting to the south-east both during flood and ebb. The mouth of the Po is perhaps the most remarkable of any on the surface of this globe, and exhibits appearances extremely singular. Its discharge is into a sequestered corner of the Adriatic. Though there be a more remarkable tide in this gulf than in any part of the Mediterranean, it is still but trifling, and it either sets directly in upon the mouth of the river or retires straight away from it. The river has many mouths, and they shift prodigiously. There has been a general increase of the land very remarkable. The marshes where Venice now stands were, in the Augustan age, everywhere penetrable by the fishing boats, and in the 5th century could only bear a few miserable huts; now they are covered with crowds of stately buildings. Ravenna, situated on the southermost mouth of the Po, was, in the Augustan age, at the extremity of a swamp, and the road to it was along the top of an artificial mound, made by Augustus at an immense expence. It was, however, a fine city, containing extensive docks, arsenals, and other massy buildings, being the great military port of the empire, where Augustus laid up his great ships of war. In the Gothic times it became almost the capital of the Western empire, and was the seat of government and of luxury. It must, therefore, be supposed to have every accommodation of opulence, and we cannot doubt of its having paved streets, wharfs, &c.; so that its wealthy inhabitants were at least walking dryfooted from house to house. But now it is an Italian mile from the sea, and surrounded with vineyards and cultivated fields, and is accessible in every direction. All this must have been formed by depositions from the Po, flowing through Lombardy loaded with the spoils of the Alps, which were here arrested by the reeds and bulrushes of the marsh. These things are in common course; but when wells are dug, we come to the pavements of the ancient city, and these pavements are all on one exact level, and they *are eight feet below the surface of the sea at low water*. This cannot be ascribed to the subsiding of the ancient city. This would be irregular, and greatest among the heavy buildings. The tomb of Theodoric remains, and the pavement round it is on a level with all the others. The lower story is always full of water; so is the lower story of the cathedral to the depth of three feet. The ornaments of both these buildings leave no room to doubt that they were formerly dry; and such a building as the cathedral could not sink without crumbling into pieces.

It is by no means easy to account for all this. The depositions of the Po and other rivers must raise the ground; and yet the rivers must still flow over all. We must conclude that the surface of the Adriatic is by no means

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means level, and that it slopes like a river from the Lagoon of Venice to the eastward. In all probability it even slopes considerably outwards from the shore. This will not hinder the alternations of ebb and flow tide, as will be shown in its proper place. The whole shores of this gulf exhibit most uncommon appearances.

94 Rivers are convex athwart the stream, and the cause of it.

The last general observation which we shall make in this place is, that the surface of a river is not flat, considered athwart the stream, but convex: this is owing to its motion. Suppose a canal of stagnant water; its surface would be a perfect level. But suppose it possible by any means to give the middle waters a motion in the direction of its length, they must drag along with them the waters immediately contiguous. These will move less swiftly, and will in like manner drag the waters without them; and thus the water at the sides being abstracted, the depth must be less, and the general surface must be convex across. The fact in a running stream is similar to this; the side waters are withheld by the sides, and every filament is moving more slowly than the one next it towards the middle of the river, but faster than the adjoining filament on the land side. This alone must produce a convexity of surface. But besides this, it is demonstrable that the pressure of a running stream is diminished by its motion, and the diminution is proportinal to the height which would produce the velocity with which it is gliding past the adjoining filament. This convexity must in all cases be very small. Few rivers have the velocity nearly equal to eight feet per second, and this requires a height of one foot only. An author quoted by M. Buffon says, that he has observed on the river Aveiron an elevation of three feet in the middle during floods; but we suspect some error in the observation.

§ 4. *Of the Windings of Rivers.*

95 Winding course of rivers, how formed.

Rivers are seldom straight in their course. Formed by the hand of nature, they are accommodated to every change of circumstance. They wind around what they cannot get over, and work their way to either side according as the resistance of the opposite bank makes a straight course more difficult; and this seemingly fortuitous rambling distributes them more uniformly over the surface of a country, and makes them every where more at hand, to receive the numberless rills and rivulets which collect the waters of our springs and the superfluities of our showers, and to comfort our habitations with the many advantages which cultivation and society can derive from their presence. In their feeble beginnings the smallest inequality of slope or consistency is enough to turn them aside and make them ramble through every field, giving drink to our herds and fertility to our soil. The more we follow nature into the minutiæ of her operations, the more must we admire the inexhaustible fertility of her resources, and the simplicity of the means by which she produces the most important and beneficial effects. By thus twisting the course of our rivers into 10,000 shapes, she keeps them long amidst our fields, and thus compensates for the declivity of the surface, which would otherwise tumble them with great rapidity into the ocean, loaded with the best and richest of our soil. Without this, the showers of heaven would have little influence in supplying the waste of incessant evaporation. But as things are, the rains are kept slowly trickling along the sloping sides of our hills and steeps, winding round every clod, nay every plant, which lengthens their course, diminishes their slope, checks their speed, and thus prevents them from quickly brushing off from every part of the surface the lightest and best of the soil. The fattest of our holm lands would be too steep, and the rivers would shoot along through our finest meadows, hurrying every thing away with them, and would be unfit for the purposes of inland conveyance, if the inequalities of soil did not make them change this headlong course for the more beautiful meanders which we observe in the course of the small rivers winding through our meadows. Those rivers are in general the straightest in their course which are the most rapid, and which roll along the greatest bodies of water: such are the Rhone, the Po, the Danube. The smaller rivers continue more devious in their progress, till they approach the sea, and have gathered strength from all their tributary streams.

96 What nature left for man to perform.

Every thing aims at an equilibrium, and this directs even the rambling of rivers. It is of importance to understand the relation between the force of a river and the resistance which the soil opposes to those deviations from a rectilineal course; for it may frequently happen that the general procedure of nature may be inconsistent with our local purposes. Man was set down on this globe, and the task of cultivating it was given him by nature, and his chief enjoyment seems to be to struggle with the elements. He must not find things to his mind, but he must mould them to his own fancy. Yet even this seeming anomaly is one of nature's most beneficent laws; and his exertions must still be made in conformity with the general train of the operations of mechanical nature: and when we have any work to undertake relative to the course of rivers, we must be careful not to thwart their general rules, otherwise we shall be sooner or later punished for their infraction. Things will be brought back to their former state, if our operations are inconsistent with that equilibrium which is constantly aimed at, or some new state of things which is equivalent will be soon induced. If a well regulated river has been improperly deepened in some place, to answer some particular purpose of our own, or if its breadth has been improperly augmented, we shall soon see a deposition of mud or sand choke up our fancied improvements; because, as we have enlarged the section without increasing the slope or the supply, the velocity must diminish, and floating matters must be deposited.

It is true, we frequently see permanent channels where the forms are extremely different from that which the waters would dig for themselves in an uniform soil, and which approaches a good deal to the trapezium described formerly. We see a greater breadth frequently compensate for a want of depth; but all such deviations are a sort of constraint, or rather are indications of inequality of soil. Such irregular forms are the works of nature; and if they are permanent, the equilibrium is obtained. Commonly the bottom is harder than the sides, consisting of the coarsest of the sand and of gravel; and therefore the necessary section can be obtained only by increasing the width. We are accustomed to attend chiefly to the appearances which prognosticate mischief, and we interpret the appearances of a permanent bed in the same way, and frequently form very false judgments. When we see one

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one bank low and flat, and the other high and abrupt, we suppose that the waters are passing along the first in peace, and with a gentle stream, but that they are rapid on the other side, and are tearing away the bank; but it is just the contrary. The bed being permanent, things are in equilibrio, and each bank is of a form just competent to that equilibrium. If the soil on both sides be uniform, the stream is most rapid on that side where the bank is low and flat, for in no other form would it withstand the action of the stream; and it has been worn away till its flatness compensates for the greater force of the stream. The stream on the other side must be more gentle, otherwise the bank could not remain abrupt. In short, in a state of permanency, the velocity of the stream and form of the bank are just suited to each other. It is quite otherwise before the river has acquired its proper regimen.

97 Necessity of attending to nature in regulating the course of rivers.

A careful consideration therefore of the general features of rivers which have settled their regimen, is of use for informing us concerning their internal motions, and directing us to the most effectual methods of regulating their course.

We have already said that perpendicular brims are inconsistent with stability. A semicircular section is the form which would produce the quickest train of a river whose expence and slope are given; but the banks at B and D (fig. 16.) would crumble in, and lie at the bottom, where their horizontal surface would secure them from farther change. The bed will acquire the form G *c* F, of equal section, but greater width, and with brims less shelving. The proportion of the velocities at A and *c* may be the same with that of the velocities at A and C; but the velocity at G and F will be less than it was formerly at B, C, or D; and the velocity in any intermediate point E, being somewhat between those at F and *c*, must be less than it was in any intermediate point of the semicircular bed. The velocities will therefore decrease along the border from *c* towards G and F, and the steepness of the border will augment at the same time, till, in every point of the new border G *c* F, these two circumstances will be so adjusted that the necessary equilibrium is established.

Fig. 16.

The same thing must happen in our trapezium. The slope of the brims may be exact, and will be retained; it will, however, be too great any where below, where the velocity is greater, and the sides will be worn away till the banks are undermined and crumble down, and the river will maintain its section by increasing its width. In short, no border made up of straight lines is consistent with that gradation of velocity which will take place whenever we depart from a semicircular form. And we accordingly see, that in all natural channels the section has a curvilineal border with the slope increasing gradually from the bottom to the brim.

These observations will enable us to understand how nature operates when the inequality of surface or of tenacity obliges the current to change its direction, and the river forms an elbow.

98 Conditions necessary for a permanent regimen.

Supposing always that the discharge continues the same, and that the mean velocity is either preserved or restored, the following conditions are necessary for a permanent regimen.

1. The depth of water must be greater in the elbow than anywhere else.

2. The main stream, after having struck the concave bank, must be reflected in an equal angle, and must then be in the direction of the next reach of the river.

3. The angle of incidence must be proportioned to the tenacity of the soil.

4. There must be in the elbow an increase of slope, or of head of water, capable of overcoming the resistance occasioned by the elbow.

The reasonableness, at least, of these conditions will appear from the following considerations.

99 Reasonableness of these conditions.

1. It is certain that force is expended in producing this change of direction in a channel which by supposition diminishes the current. The diminution arising from any cause which can be compared with friction must be greater when the stream is directed against one of the banks. It may be very difficult to state the proportion, and it would occupy too much of our time to attempt it; but it is sufficient that we be convinced that the retardation is greater in this case. We see no cause to increase the mean velocity in the elbow, and we must therefore conclude that it is diminished. But we are supposing that the discharge continues the same; the section must therefore augment, or the channel increase its transverse dimensions. The only question is, In what manner it does this, and what change of form does it affect, and what form is competent to the final equilibrium and the consequent permanency of the bed? Here there is much room for conjecture. Mr Buat reasons as follows. If we suppose that the points B and C (fig. 17.) continue on a level, and that the points H and I at the beginning of the next reach are also on a level, it is an inevitable consequence that the slope along CMI must be greater than along BEH, because the depression of H below B is equal to that of I below C, and BEH is longer than CMI. Therefore the velocity along the convex bank CMI must be greater than along BEH. There may even be a stagnation and an eddy in the contrary direction along the concave bank. Therefore, if the form of the section were the same as up the stream, the sides could not stand on the convex bank. When therefore the section has attained a permanent form, and the banks are again in equilibrio with the action of the current, the convex bank must be much flatter than the concave. If the water is really still on the concave bank, that bank will be absolutely perpendicular; nay, may overhang.—Accordingly, this state of things is matter of daily observation, and justifies our reasoning, and entitles us to say, that this is the nature of the internal motion of the filaments which we cannot distinctly observe. The water moves most rapidly along the convex bank, and the thread of the stream is nearest to this side. Reasoning in this way the section, which we may suppose to have been originally of the form M *b a* E, (fig. 18.) assumes the shape MBAE.

Fig. 17.

Fig. 18.

2. Without presuming to know the mechanism of the internal motions of fluids, we know that superficial waves are reflected precisely as if they were elastic bodies, making the angles of incidence and reflection equal. In as far therefore as the superficial wave is concerned in the operation, Mr Buat's second position is just. The permanency of the next reach requires that its axis shall be in the direction of the line EP which makes the angle GEP = FEN. If the next reach has the direction LQ, MR, the wave reflected in the line ES will work on the bank at S, and will be reflected in the line ST, and work

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again on the opposite bank at T. We know that the effect of the superficial motion is great, and that it is the principal agent in destroying the banks of canals. So far therefore Mr Buat is right. We cannot say with any precision or confidence how the actions of the under filaments are modified; but we know no reason for not extending to the under filaments what appears so probable with respect to the surface water.

3. The third position is no less evident. We do not know the mode of action of the water on the bank; but our general notions on this subject, confirmed by common experience, tell us that the more obliquely a stream of water beats on any bank, the less it tends to undermine it or wash it away. A stiff and cohesive soil therefore will suffer no more from being almost perpendicularly buffeted by a stream than a friable sand would suffer from water gliding along its face. Mr Buat thinks, from experience, that a clay bank is not sensibly affected till the angle FEB is about 36 degrees.

4. Since there are causes of retardation, and we still suppose that the discharge is kept up, and that the mean velocity, which had been diminished by the enlargement of the section, is again restored, we must grant that there is provided, in the mechanism of these motions, an accelerating force adequate to this effect. There can be no accelerating force in an open stream but the superficial slope. In the present case it is undoubtedly so; because by the deepening of the bottom where there is an elbow in the stream, we have of necessity a counter slope. Now, all this head of water, which must produce the augmentation of velocity in that part of the stream which ranges round the convex bank, will arise from the check which the waters gets from the concave bank. This occasions a gorge or swell up the stream, enlarges a little the section at BVC; and this, by the principle of uniform motion, will augment all the velocities, deepen the channel, and put every thing again into its train as soon as the water gets into the next reach. The water at the bottom of this bason has very little motion, but it defends the bottom by this very circumstance.

100 Remarks on these conditions, and the reasons of them.

Such are the notions which Mr de Buat entertains of this part of the mechanism of running waters. We cannot say that they are very satisfactory, and they are very opposite to the opinions commonly entertained on the subject. Most persons think that the motion is most rapid and turbulent on the side of the concave bank, and that it is owing to this that the bank is worn away till it become perpendicular, and that the opposite bank is flat, because it has not been gnawed away in this manner. With respect to this general view of the matter, these persons may be in the right; and when a stream is turned into a crooked and yielding channel for the first time, this is its manner of action. But Mr Buat's aim is to investigate the circumstances which obtain in the case of a regimen; and in this view he is undoubtedly right as to the facts, though his mode of accounting for these facts may be erroneous. And as this is the only useful view to be taken of the subject, it ought chiefly to be attended to in all our attempts to procure stability to the bed of a river, without the expensive helps of masonry, &c. If we attempt to secure permanency by deepening on the inside of the elbow, our bank will undoubtedly crumble down, diminish the passage, and occasion a more violent action on the hollow bank. The most effectual mean of security is to enlarge the section: and if we do this on the inside bank, we must do it by widening the stream very much, that we may give a very sloping bank. Our attention is commonly drawn to it when the hollow bank is giving way, and with a view to stop the ravages of the stream. Things are not now in a state of permanency, but nature is working in her own way to bring it about. This may not suit *our* purpose, and we must thwart her. The phenomena which we then observe are frequently very unlike to those described in the preceding paragraphs. We see a violent tumbling motion in the stream towards the hollow bank. We see an evident accumulation of water on that side, and the point B is frequently higher than C. This regorging of the water extends to some distance, and is of itself a cause of greater velocity, and contributes, like a head of stagnant water, to force the stream through the bend, and to deepen the bottom. This is clearly the case when the velocity is excessive, and the hollow bank able to abide the shock. In this situation the water thus heaped up escapes where it best can; and as the water obstructed by an obstacle put in its way, escapes by the sides, and there has its velocity increased, so here the water gorged up against the hollow bank swells over towards the opposite side, and passes round the convex bank with an increased velocity. It depends much on the adjustment between the velocity and consequent accumulation, and the breadth of the stream and the angle of the elbow, whether this augmentation of velocity shall reach the convex bank; and we sometimes see the motion very languid in that place, and even depositions of mud and sand are made there. The whole phenomena are too complicated to be accurately described in general terms, even in the case of perfect regimen: for this regimen is relative to the consistence of the channel; and when this is very great, the motions may be most violent in every quarter. But the preceding observations are of importance, because they relate to ordinary cases and to ordinary channels.

It is evident, from Mr Buat's second position, that the proper form of an elbow depends on the breadth of the stream as well as on the radius of curvature, and that every angle of elbow will require a certain proportion between the width of the river and the radius of the sweep. Mr Buat gives rules and formulæ for all these purposes, and shows that in one sweep there may be more than one reflection or rebound. It is needless to enlarge on this matter of mere geometrical discussion. It is with the view of enabling the engineer to trace the windings of a river in such a manner that there shall be no rebounds which shall direct the stream against the sides, but preserve it always in the axis of every reach. This is of consequence, even when the bends of the river are to be secured by masonry or piling; for we have seen the necessity of increasing the section, and the tendency which the waters have to deepen the channel on that side where the rebound is made. This tends to undermine our defences, and obliges us to give them deeper and more solid foundations in such places. But any person accustomed to the use of the scale and compasses will form to himself rules of practice equally sure and more expeditious than Mr de Buat's formulæ.

101 Resistance caused by an elbow, and mode of overcoming it.

We proceed, therefore, to what is more to our purpose, the consideration of the resistance caused by an elbow, and the methods of providing a force capable of overcoming it. We have already taken notice of the salutary consequences arising from the rambling course

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course of rivers, inasmuch as it more effectually spreads them over the face of a country. It is no less beneficial by diminishing their velocity. This it does both by lengthening their course, which diminishes the declivity, and by the very resistance which they meet with at every bend. We derive the chief advantages from our rivers, when they no longer shoot their way from precipice to precipice, loaded with mud and sand, but peaceably roll along their clear waters, purified during their gentler course, and offer themselves for all the purposes of pasturage, agriculture, and navigation. The more a river winds its way round the foot of the hills, the more is the resistance of its bed multiplied; the more obstacles it meets with in its way from its source to the sea, the more moderate is its velocity; and instead of tearing up the very bowels of the earth, and digging for itself a deep trough, along which it sweeps rocks and rooted-up trees, it flows with majestic pace even with the surface of our cultivated grounds, which it embellishes and fertilizes.

We may with safety proceed on the supposition, that the force necessary for overcoming the resistance arising from a rebound is as the square of the velocity; and it is reasonable to suppose it proportional to the square of the sine of the angle of incidence, and this for the reasons given for adopting this measure of the general *Resistance of Fluids*. It cannot, however, claim a greater confidence here than in that application; and it has been shown in that article with what uncertainty and limitations it must be received. We leave it to our readers to adopt either this or the simple ratio of the sines, and shall abide by the duplicate ratio with Mr Buat, because it appears by his experiments that this law is very exactly observed in tubes in inclinations not exceeding 40°; whereas it is in these small angles that the application to the general resistance of fluids is most in fault. But the correction is very simple, if this value shall be found erroneous. There can be little doubt that the force necessary for overcoming the resistance will increase as the number of rebounds.—Therefore we may express the resistance, in general, by the formula $r = \frac{V^2 s^2 n}{m}$; where r is the resistance, V the mean velocity of the stream, s the sine of the angle of incidence, n the number of equal rebounds (that is, having equal angles of incidence), and m is a number to be determined by experiment. Mr de Buat made many experiments on the resistance occasioned by the bendings of pipes, none of which differed from the result of the above formula above one part in twelve; and he concludes, that the resistance to one bend may be estimated at $\frac{V^2 s^2}{3000}$. The experiment was in this form: A pipe of one inch diameter, and 10 feet long, was formed with 10 rebounds of 36° each. A head of water was applied to it, which gave the water a velocity of six feet per second. Another pipe of the same diameter and length, but without any bendings, was subjected to a pressure of a head of water, which was increased till the velocity of efflux was also six feet per second. The additional head of water was $5\frac{9}{10}$ inches. Another of the same diameter and length, having one bend of 24° 34, and running 85 inches per second, was compared with a straight pipe having the same velocity, and the difference of the heads of water was $\frac{37}{100}$ of an inch. A computation from these two experiments will give the above result, or in English measure, $r = \frac{V^2 s^2}{3200}$ very nearly. It is probable that this measure of the resistance is too great; for the pipe was of uniform diameter even in the bends: whereas in a river properly formed, where the regimen is exact, the capacity of the section of the bend is increased.

102 Theory applied to inclined tubes and open streams. Fig. 19.

The application of this theory to inclined tubes and to open streams is very obvious, and very legitimate and safe. Let AB (fig. 19.) be the whole height of the reservoir ABIK, and BC the horizontal length of a pipe, containing any number of rebounds, equal or unequal, but all regular, that is, constructed according to the conditions formerly mentioned. The whole head of water should be conceived as performing, or as divided into portions which perform, three different offices.—One portion, $AD = \frac{V^2}{505}$, impels the water into the entry of the pipe with the velocity with which it really moves in it; another portion EB is in equilibrio with the resistances arising from the mere length of the pipe expanded into a straight line; and the third portion DE serves to overcome the resistance of the bends. If, therefore, we draw the horizontal line BC, and, taking the pipe BC out of its place, put it in the position DH, with its mouth C in H, so that DH is equal to BC, the water will have the same velocity in it that it had before. N. B. For greater simplicity of argument, we may suppose that when the pipe was inserted at B, its bends lay all in a horizontal plane, and that when it is inserted at D, the plane in which all its bends lie slopes only in the direction DH, and is perpendicular to the plane of the figure. We repeat it, the water will have the same velocity in the pipes BC and DH, and the resistances will be overcome. If we now prolong the pipe DH towards L to any distance, repeating continually the same bendings in a series of lengths, each equal to DH, the motion will be continued with the velocity corresponding to the pressure of the column AD; because the declivity of the pipe is augmented in each length equal to DH, by a quantity precisely sufficient for overcoming all the resistances in that length; and the true slope in these cases is BE + ED, divided by the expanded length of the pipe BC or DH.

The analogy which we were enabled to establish between the uniform motion or the train of pipes and of open streams, intitles us now to say, that when a river has bendings, which are regularly repeated at equal intervals, its slope is compounded of the slope which is necessary for overcoming the resistance of a straight channel of its whole expanded length, agreeably to the formula for uniform motion, and of the slope which is necessary for overcoming the resistance arising from its bending alone.

Thus, let there be a river which, in the expanded course of 6000 fathoms, has 10 elbows, each of which has 30° of rebound; and let its mean velocity be 20 inches in a second. If we should learn its whole slope in this 6000 fathoms, we must first find (by the formula of uniform motion) the slope s which will produce the velocity of 20 inches in a straight river of this length, section

Theory.

section, and mean depth. Suppose this to be $\frac{1}{21000}$, or 20 inches in this whole length. We must then find (by the formula $\frac{V^2 \operatorname{Sin}^2}{3200}$) the slope necessary for overcoming the resistance of 10 rebounds of 30° each. This we shall find to be $6\frac{2}{3}$ inches in the 6000 fathoms. Therefore the river must have a slope of $26\frac{2}{3}$ inches in 6000 fathoms, or $\frac{1}{10200}$; and this slope will produce the same velocity which 20 inches, or $\frac{1}{21000}$, would do in a straight running river of the same length.

Theory.

Part II. PRACTICAL INFERENCES.

HAVING thus established a theory of a most important part of hydraulics, which may be confided in as a just representation of nature's procedure, we shall apply it to the examination of the chief results of every thing which art has contrived for limiting the operations of nature, or modifying them so as to suit our particular views. Trusting to the detail which we have given of the connecting principles, and the chief circumstances which co-operate in producing the ostensible effect; and supposing that such of our readers as are interested in this subject will not think it too much trouble to make the applications in the same detail; we shall content ourselves with merely pointing out the steps of the process, and showing their foundation in the theory itself: and frequently, in place of the direct analysis which the theory enables us to employ for the solution of the problems, we shall recommend a process of approximation by trial and correction, sufficiently accurate, and more within the reach of practical engineers. We are naturally led to consider in order the following articles.

103 Approximation by trial and correction recommended to practical engineers.

1. The effects of permanent additions of every kind to the waters of a river, and the most effectual methods of preventing or removing inundations.

2. The effects of weirs, bars, sluices, and keeps of every kind, for raising the surface of a river; and the similar effects of bridges, piers, and every thing which contracts the section of the stream.

3. The nature of canals; how they differ from rivers in respect of origin, discharge, and regimen, and what conditions are necessary for their most perfect construction.

4. Canals for draining land, and drafts or canals of derivation from the main stream. The principles of their construction, so that they may suit their intended purposes, and the change which they produce on the main stream, both above and below the point of derivation.

Of the Effects of Permanent Additions to the Waters of a River.

104 Problems and examples on the effects of permanent additions to the waters of a river.

From what has been said already, it appears that to every kind of soil or bed there corresponds a certain velocity of current, too small to hurt it by digging it up, and too great to allow the deposition of the materials which it is carrying along. Supposing this known for any particular situation, and the quantity of water which the channel must of necessity discharge, we may wish to learn the smallest slope which must be given to this stream, that the waters may run with the required velocity. This suggests,

Prob. I. Given the discharge D of a river, and V its velocity of regimen: required the smallest slope s, and the dimensions of its bed?

Since the slope must be the smallest possible, the bed must have the form which will give the greatest mean depth d, and should therefore be the trapezium formerly described; and its area and perimeter are the same with those of a rectangle whose breadth is twice its height h. These circumstances give us the equation $\frac{D}{V} = 2h^2$. For the area of the section is twice the square of the height, and the discharge is the product of this area and the velocity. Therefore $\sqrt{\frac{D}{2V}} = h$ and $\sqrt{\frac{2D}{V}}$ = the breadth b.

The formula of uniform motion gives $\sqrt{s} - L\sqrt{s+1.6} = \frac{297(\sqrt{d}-0.1)}{V+0.3(\sqrt{d}-0.1)}$. Instead of $\sqrt{d}-0.1$, put its equal $\sqrt{\frac{h}{2}}-0.1$, and every thing being known in the second member of this equation, we easily get the value of s by a few trials after the following manner: Suppose that the second member is equal to any number, such as 9. First suppose that $\sqrt{s}$ is $=9$. Then the hyperbolic logarithm of $9+1.6$ or of 10.6 is 2.36. Therefore we have $\sqrt{s} - L\sqrt{s+1.6} = 9-2.36, = 6.64$; whereas it should have been $=9$. Therefore say $6.64 : 9 = 9 : 11.2$ nearly. Now suppose that $\sqrt{s}$ is $= 12.2$. Then $L\sqrt{12.2+1.6} = L13.8$, $=2.625$ nearly, and $12.2-2.625$ is 9.575 whereas it should be 9. Now we find that changing the value of $\sqrt{s}$ from 9 to 12.2 has changed the answer from 6.64 to 9.575, or a change of 3.2 in our assumption has made a change of 2.935 in the answer, and has left an error of 0.575. Therefore say $2.935 : 0.575 = 3.2 : 0.628$. Then, taking 0.628 from 12.2 we have (for our next assumption or value of $\sqrt{s}$) 11.572. Now $11.572 + 1.6 = 13.172$, and L 13.172 is 2.58 nearly. Now try this last value $11.561 - 2.58$ is 9.008, sufficiently exact. This may serve as a specimen of the trials by which we may avoid an intricate analysis.

Prob. II. Given the discharge D, the slope s, and the velocity V, of permanent regimen, to find the dimensions of the bed.

Let x be the width, and y the depth of the channel, and S the area of the section. This must be $= \frac{D}{V}$, which is therefore $= xy$. The denominator s being given, we may make $\sqrt{s} - L\sqrt{s+1.6} = \sqrt{B}$, and the formula

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formula of mean velocity will give $V = \frac{207(\sqrt{d}-0.1)}{\sqrt{B}} - 0.3(\sqrt{d}-0.1)$, which we may express thus: $V = (\sqrt{d}-0.1)\left(\frac{297}{\sqrt{B}}-0.3\right)$, which gives $\frac{V}{\frac{297}{\sqrt{B}}-0.3} = \sqrt{d}-0.1)$; and finally, $\frac{V}{\frac{297}{\sqrt{B}}-0.3}+0.1 = \sqrt{d}$.

Having thus obtained what we called the mean depth, we may suppose the section rectangular. This gives $d = \frac{xy}{x+2y}$. Thus we have two equations, $S = xy$ and $d = \frac{xy}{x+2y}$.

From which we obtain $x = \sqrt{\left(\frac{S}{2d}\right)^2 - 2S} + \frac{S}{2d}$.

And having the breadth x and area S, we have $y = \frac{S}{x}$. And then we may change this for the trapezium often mentioned.

These are the chief problems on this part of the subject, and they enable us to adjust the slope and channel of a river which receives any number of successive permanent additions by the influx of other streams. This last informs us of the rise which a new supply will produce, because the additional supply will require additional dimensions of the channel; and as this is not supposed to increase in breadth, the addition will be in depth. The question may be proposed in the following problem.

Prob. III. Given the slope s, the depth and the base of a rectangular bed (or a trapezium), and consequently the discharge D, to find how much the section will rise, if the discharge be augmented by a given quantity.

Let h be the height after the augmentation, and w the width for the rectangular bed. We have in any uniform current $\sqrt{d} = \frac{V}{\frac{297}{\sqrt{B}}-0.3}$. Raising this to a square, and putting for d and V their values $\frac{wh}{w+2h}$ and $\frac{D}{wh}$, and making $\frac{297}{\sqrt{B}}-0.3 = K$, the equation becomes $\frac{wh}{w+2h} = \left(\frac{D}{whK}+0.1\right)^2$. Raising the second member to a square, and reducing, we obtain a cubic equation, to be solved in the usual manner.

But the solution would be extremely complicated. We may obtain a very expeditious and exact approximation from this consideration, that a small change in one of the dimensions of the section will produce a much greater change in the section and the discharge than in the mean depth d. Having therefore augmented the unknown dimension, which is here the height, make use of this to form a new mean depth, and then the new equation $\sqrt{d} - \frac{D}{wh\left(\frac{297}{\sqrt{B}}-0.3\right)}+0.1$ will give us another value of h, which will rarely exceed the truth by $\frac{1}{10}$. This serves (by the same process) for finding another, which will commonly be sufficiently exact. We shall illustrate this by an example.

Let there be a river whose channel is a rectangle 150 feet wide and six feet deep, and which discharges 1500 cubic feet of water per second, having a velocity of 20 inches, and slope of $\frac{1}{12000}$, or about $\frac{7}{12}$ of an inch in 100 fathoms. How much will it rise if it receives an addition which triples its discharge? and what will be its velocity?

If the velocity remained the same, its depth would be tripled; but we know by the general formula that its velocity will be greatly increased, and therefore its depth will not be tripled. Suppose it to be doubled, and to become 12 feet. This will give $d = 10.34483$, or 124.138 inches; then the equation $\sqrt{d}-0.1 = \frac{D}{wh\left(\frac{297}{\sqrt{B}}-0.3\right)}$, or $h = \frac{D}{w(\sqrt{d}-0.1)\left(\frac{297}{\sqrt{B}}-0.3\right)}$, and in which we have $\sqrt{B} = 107.8$, $D = 4500$; $\sqrt{d}-0.1 = 11.0417$, will give $h = 13.276$; whereas it should have been 12. This shows that our calculated value of d was too small. Let us therefore increase the depth by 0.9, or make it 12.9, and repeat the calculation. This will give us $\sqrt{d}-0.1 = 11.3927$, and $h = 12.867$, instead of 13.276. Therefore augmenting our data 0.9 changes our answer 0.409. If we suppose these small changes to retain their proportions, we may conclude that if 12 be augmented by the quantity $x \times 0.9$, the quantity 13.276 will diminish by the quantity $x \times 0.409$. Therefore that the estimated value of h may agree with the one which results from the calculation, we must have $12 + x \times 0.9 = 13.276 - q \times 0.409$. This will give $x = \frac{1.276}{1.309}$, $= 0.9748$, and $x \times 0.9 = 0.8773$; and $h = 12.8773$. If we repeat the calculation with this value of h, we shall find no change.

This value of h gives $d = 131.8836$ inches. If we now compute the new velocity by dividing the new discharge 4500 by the new area 150×12.8773, we shall find it to be 27.95 inches, in place of 20, the former velocity.

We might have made a pretty exact first assumption, by recollecting what was formerly observed, that when the breadth is very great in proportion to the depth, the mean depth differs insensibly from the real depth, or rather follows nearly the same proportions, and that the velocities are proportional to the square roots of the depths. Call the first discharge d, the height h, and velocity v, and let D, H, and V, express these things in their augmented state. We have $v = \frac{d}{wh}$ and $V = \frac{D}{wH}$, and $v : V = \frac{d}{h} : \frac{D}{H}$, and $v^2 : V^2 = \frac{d^2}{h^2} : \frac{D^2}{H^2}$. But by this remark $v^2 : V^2 = h : H$. Therefore $h : H = \frac{d^2}{h^2} : \frac{D^2}{H^2}$, and $\frac{hD^2}{h^2} = \frac{Hd^2}{h^2}$, and $h^3D^2 = H^3d^2$, and $d^2 : D^2 = h^3 : H^3$ (a useful theorem) and $H^3 = \frac{h^3D^2}{d^2}$, and $H = \sqrt[3]{\frac{h^3D^2}{d^2}} = 12.48$.

Or

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Or we might have made the same assumption by the remark also formerly made on this case, that the squares of the discharges are nearly as the cubes of the height, or $1500^2 : 4500 = 6^3 : 12.48^3$.

And in making these first guesses, we shall do it more exactly, by recollecting that a certain variation of the mean depth d requires a greater variation of the height, and the increment will be to the height nearly as half the height to the width, as may easily be seen. Therefore, if we add to 12.48 its $\frac{6.24}{150}$th part, or its 24th part, viz. 0.52, we have 13 for our first assumption, exceeding the truth only an inch and a half. We mention these circumstances that those who are disposed to apply these doctrines to the solution of practical cases may be at no loss when one occurs of which the regular solution requires an intricate analysis.

105 The inverse of the problems show the effects of enlarging the section of a river,

It is evident that the inverse of the foregoing problems will show the effects of enlarging the section of a river, that is, will show how much its surface will be sunk by any proposed enlargement of its bed. It is therefore needless to propose such problems in this place. Common sense directs us to make these enlargements in those parts of the river where their effect will be greatest, that is, where it is shallowest when its breadth greatly exceeds its depth, or where it is narrowest (if its depth exceed the breadth, which is a very rare case), or in general, where the slope is the smallest for a short run.

106 and direct us in the method of embankments.

The same general principles direct us in the method of embankments, for the prevention of floods, by enabling us to ascertain the heights necessary to be given to our banks. This will evidently depend, not only on the additional quantity of water which experience tells us a river brings down during its freshes, but also on the distance at which we place the banks from the natural banks of the river. This is a point where mistaken economy frequently defeats its own purpose. If we raise our embankment at some distance from the natural banks of the river, not only will a smaller height suffice, and consequently a smaller base, which will make a saving in the duplicate proportion of the height; but our works will be so much the more durable nearly, if not exactly, in the same proportion. For by thus enlarging the additional bed which we give to the swollen river, we diminish its velocity almost in the same proportion that we enlarge its channel, and thus diminish its power of ruining our works. Except, therefore, in the case of a river whose freshes are loaded with fine sand to destroy the turf, it is always proper to place the embankment at a considerable distance from the natural banks. Placing them at half the breadth of the stream from its natural banks, will nearly double its channel; and, except in the case now mentioned, the space thus detached from our fields will afford excellent pasture.

The limits of such a work as ours will not permit us to enter into any detail on the method of embankment. It would require a volume to give instructions as to the manner of founding, raising, and securing the dykes which must be raised, and a thousand circumstances which must be attended to. But a few general observations may be made, which naturally occur while we are considering the manner in which a river works in settling or altering its channel.

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It must be remarked, in the first place, that the river will rise higher when embanked than it does while it was allowed to spread; and it is by that means easy to conclude to what height it will rise from the greatest height to which it has been observed to rise in its floods. When at liberty to expand over a wide valley; then it could only rise till it overflowed with a thickness or depth of water sufficient to produce a motion backwards into the valley quick enough to take off the water as fast as it was supplied; and we imagine that a foot or two would suffice in most cases. The best way for a prudent engineer will be to observe the utmost rise remembered by the neighbours in some gorge, where the river cannot spread out. Measure the increased section in this place, and at the same time recollect, that the water increases in a much greater proportion than the section; because an increase of the hydraulic mean depth produces an increase of velocity in the duplicate proportion of the depth nearly. But as this augmentation of velocity will obtain also between the embankments, it will be sufficiently exact to suppose that the section must be increased here nearly in the same proportion as at the gorge already mentioned. Neglecting this method of information, and regulating the height of our embankment by the greatest swell that has been observed in the plain, will assuredly make them too low, and render them totally useless.

A line of embankment should always be carried on by a strict concert of the proprietors of both banks through its whole extent. A greedy proprietor, by advancing his own embankment beyond that of his neighbours, not only exposes himself to risk by the working of the waters on the angles which this will produce, but exposes his neighbours also to danger, by narrowing the section, and thereby raising the surface and increasing the velocity, and by turning the stream athwart, and causing it to shoot against the opposite bank. The whole should be as much as possible in a line: and the general effect should be to make the course of the stream straighter than it was before. All bends should be made more gentle, by keeping the embankment further from the river in all convex lines of the natural bank, and bringing it nearer where the bank is concave. This will greatly diminish the action of the waters on the bankment, and insure their duration. The same maxim must be followed in fencing any brook which discharges itself into the river. The bends given at its mouth to the two lines of embankment should be made less acute than those of the natural brook, although, by this means, two points of land are left out. And the opportunity should be embraced of making the direction of this transverse brook more sloping than before, that is, less athwart the direction of the river.

It is of great consequence to cover the outside of the dyke with very compact turf closely united. If it admit water, the interior part of the wall, which is always more porous, becomes drenched in water, and this water acts with its statical pressure, tending to burst the bank on the land-side, and will quickly shift it from its seat. The utmost care should therefore be taken to make it and keep it perfectly tight. It should be a continued fine turf, and every bare spot should be carefully covered with fresh sod; and rat holes must be carefully closed up.

Of

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Of Straighting or Changing the Course of Rivers.

107 Of the slope required at the bend of a river, and the consequences.

We have seen, that every bending of a river requires an additional slope in order to continue its train, or enable it to convey the same quantity of water without swelling in its bed. Therefore the effect of taking away any of these bends must be to sink the waters of the river. It is proper, therefore, to have it in our power to estimate these effects. It may be desirable to gain property, by taking away the sweeps of a very winding stream. But this may be prejudicial, by destroying the navigation on such a river. It may also hurt the proprietors below, by increasing the velocity of the stream, which will expose them to the risk of its overflowing, or of its destroying its bed, and taking a new course. Or this increase of velocity may be inconsistent with the regimen of the new channel, or at least require larger dimensions than we should have given it if ignorant of this effect.

Our principles of uniform motion enable us to answer every question of this kind which can occur; and M. de Buat proposes several problems to this effect. The regular solutions of them are complicated and difficult; and we do not think them necessary in this place, because they may all be solved in a manner not indeed so elegant, because indirect, but abundantly accurate, and easy to any person familiar with those which we have already considered.

We can take the exact level across all these sweeps, and thus obtain the whole slope. We can measure with accuracy the velocity in some part of the channel which is most remote from any bend, and where the channel itself has the greatest regularity of form. This will give us the expence or discharge of the river, and the mean depth connected with it. We can then examine whether this velocity is precisely such as is compatible with stability in the straight course. If it is, it is evident that if we cut off the bends, the greater slope which this will produce will communicate to the waters a velocity incompatible with the regimen suited to this soil, unless we enlarge the width of the stream, that is, unless we make the new channel more capacious than the old one. We must now calculate the dimensions of the channel which, with this increased slope, will conduct the waters with the velocity that is necessary. All this may be done by the foregoing problems; and we may easiest accomplish this by steps. First, suppose the bed the same with the old one, and calculate the velocity for the increased slope by the general formula. Then change one of the dimensions of the channel, so as to produce the velocity we want, which is a very simple process. And in doing this, the object to be kept chiefly in view is not to make the new velocity such as will be incompatible with the stability of the new bed.

Having accomplished this first purpose, we learn (in the very solution) how much shallower this channel with its greater slope will be than the former, while it discharges all the waters. This diminution of depth must increase the slope and the velocity, and must diminish the depth of the river, above the place where the alteration is to be made. How far it produces these effects may be calculated by the general formula. We then see whether the navigation will be hurt, either in the old river up the stream, or in the new channel. It is plain that all these points cannot be reconciled. We may make the new channel such, that it shall leave a velocity compatible with stability, and that it shall not diminish the depth of the river up the stream. But having a greater slope, it must have a smaller mean depth, and also a smaller real depth, unless we make it of a very inconvenient form.

The same things viewed in a different light, will show us what depression of waters may be produced by rectifying the course of a river in order to prevent its overflowing. And the process which we would recommend is the same with the foregoing. We apprehend it to be quite needless to measure the angles of rebound, in order to *compute* the slope which is *employed* for sending the river through the bend, with a view to supersede this by straighting the river. It is infinitely easier and more exact to measure the levels themselves, and then we know the effect of removing them.

Nor need we follow M. de Buat in solving problems for diminishing the slope and velocity, and deepening the channel of a river by bending its course. The expence of this would be in every case enormous; and the practices which we are just going to enter upon afford infinitely easier methods of accomplishing all the purposes which are to be gained by these changes.

Of Bars, Weirs, and Jetteys, for raising the Surface of Rivers.

108 Problems, examples, and consequences, of raising the surface of rivers.

We propose, under the article *Water-Works*, to consider in sufficient practical detail all that relates to the construction and mechanism of these and other erections in water; and we confine ourselves, in this place, to the mere effect which they will produce on the current of the river.

We gave the name of *weir* or *bar* to a dam erected across a river for the purpose of raising its waters, whether in order to take off a draft for a mill or to deepen the channel. Before we can tell the effect which they will produce, we must have a general rule for ascertaining the relation between the height of the water above the lip of the weir or bar, and the quantity of water which will flow over.

First, then, with respect to a weir, represented in fig. 20. and fig. 21. The latter figure more resembles their usual form, consisting of a dam of solid masonry, or built of timber, properly fortified with shoars and banks. On the top is set up a strong plank FR, called the wasteboard or waster, over which the water flows. This is brought to an accurate level, of the proper height. Such voiders are frequently made in the side of a mill-course, for letting the superfluous water run off. This is properly the WASTER, VOIDER: it is also called an OFFSET. The same observations will explain all these different pieces of practice. The following questions occur in course. Fig. 20, 21.

PROB. I. Given the length of an offset or wasteboard, made in the face of a reservoir of stagnant water and the depth of its lip under the horizontal surface of the water, to determine the discharge, or the quantity of water which will run over in a second?

Let AB be the horizontal surface of the still water, and F the lip of the wasteboard. Call the depth BF under the surface h, and the length of the wasteboard l.

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N. B. The water is supposed to flow over into another bason or channel, so much lower than the surface HL of the water is lower, or at least not higher, than F.

If the water could be supported at the height BF, BF might be considered as an orifice in the side of a vessel. In which case, the discharge would be the same as if the whole water were flowing with the velocity acquired from the height $\frac{4}{9}$ BF, or $\frac{4}{9}$ h. And if we suppose that there is no contraction at the orifice, the mean velocity would be $\sqrt{2g\frac{4}{9}h}, = \sqrt{772\frac{4}{9}h}$, in English inches, per second. The area of this orifice is $l\,h$. Therefore the discharge would be $l\,h\,\sqrt{772\frac{4}{9}h}$, all being measured in inches. This is the usual theory; but it is not an exact representation of the manner in which the efflux really happens. The water cannot remain at the height BF; but in drawing towards the wasteboard from all sides, it forms a convex surface AIH, so that the point I, where the vertical drawn from the edge of the wasteboard meets the curve, is considerably lower than B. But as all the mass above F is supposed perfectly fluid, the pressure of the incumbent water is propagated, in the opinion of M. de Buat, to the filament passing over at F without any diminution. The same may be said of any filament between F and I. Each tends, therefore, to move in the same manner if it were really impelled through an orifice in its place. Therefore the motions through every part of the line or plane IF are the same as if the water were escaping through an orifice IF, made by a sluice let down on the water, and keeping up the water of the reservoir to the level AB. It is beyond a doubt (says he) that the height IF must depend on the whole height BF, and that there must be a certain determined proportion between them. He does not attempt to determine this proportion theoretically, but says, that his experiments ascertain it with great precision to be the proportion of one to two, or that IF is always one-half of BF. He says, however, that this determination was not by an immediate and direct measurement; he concluded it from the comparison of the quantities of water discharged under different heights of the water in the reservoir.

We cannot help thinking that this reasoning is very defective in several particulars. It cannot be inferred, from the laws of hydrostatical pressure, that the filament at I is pressed forward with all the weight of the column BI. The particle I is really at the surface; and considering it as making part of the surface of a running stream, it is subjected to hardly any pressure, any more than the particles on the surface of a cup of water held in the hand, while it is carried round the axis of the earth and round the sun. Reasoning according to his own principles, and availing himself of his own discovery, he should say, that the particle at I has an accelerating force depending on its slope only; and then he should have endeavoured to ascertain this slope. The motion of the particle at I has no immediate connection with the pressure of the column BI; and if it had, the motion would be extremely different from what it is: for this pressure alone would give it the velocity which M. Buat assigns it. Now it is already passing through the point I with the velocity which it has acquired in descending along the curve AI; and this is the real state of the case. The particles are passing through with a velocity already acquired by a sloping current; and they are accelerated by the hydrostatical pressure of the water above them. The internal mechanism of these motions is infinitely more complex than M. Buat here supposes; and on this supposition, he very nearly abandons the theory which he has so ingeniously established, and adopts the theory of Guglielmini which he had exploded. At the same time, we think that he is not much mistaken when he asserts, that the motions are nearly the same as if a sluice had been let down from the surface to I. For the filament which passes at I has been gliding down a curved surface, and has not been exposed to any friction. It is perhaps the very case of hydraulics where the obstructions are the smallest; and we should therefore expect that its motion will be least retarded.

We have therefore no hesitation in saying, that the filament at I is in the very state of motion which the theory would assign to it if it were passing under a sluice, as M. Buat supposes. And with respect to the inferior filaments, without attempting the very difficult task of investigating their motions, we shall just say, that we do not see any reason for supposing that they will move slower than our author supposes. Therefore, though we reject his theory, we admit his experimental proposition in general; that is, we admit that the *whole* water which passes through the plane IF moves with the velocity (though not in the same direction) with which it would have run through a sluice of the same depth; and we may proceed with his determination of the quantity of water discharged.

If we make BC the axis of a parabola BEGH, the velocities of the filaments passing at I and F will be represented by the ordinates IE and FG, and the discharge by the area IEGF. This allows a very neat solution of the problem. Let the quantity discharged per second be D, and let the whole height BF be h. Let 2 G be the quantity by which we must divide the square of the mean velocity, in order to have the producing height. This will be less than $2g$, the acceleration of gravity, on account of the convergency at the sides and the tendency to convergence at the lip F. We formerly gave for its measure 726 inches, instead of 772, and said that the inches discharged per second from an orifice of one inch were 26.49, instead of 27.78. Let x be the distance of any filament from the horizontal line AB. An element of the orifice, therefore, (for we may give it this name) is $l\dot{x}$. The velocity of this element is $\sqrt{2Gx}$, or $\sqrt{2G}\times\sqrt{x}$. The discharge from it is $l\sqrt{2G}\,x^{\frac{1}{2}}\,\dot{x}$, and the fluent of this, or $D = \int^{\circ} l\sqrt{2Gx}^{\frac{1}{2}}\,\dot{x}$, which is $\frac{2}{3}l\sqrt{2G}x^{\frac{3}{2}}+C$. To determine the constant quantity C, observe that M. de Buat found by experiment that B was in all cases $\frac{1}{2}$ BF. Therefore D must be nothing when $x = \frac{1}{2}h$; consequently $C = -\frac{2}{3}l\sqrt{2G}\left(\frac{h}{2}\right)^{\frac{3}{2}}$, and the completed fluent will be $D = \frac{2}{3}l\sqrt{2G}\left(x^{\frac{3}{2}} - \left(\frac{h}{2}\right)^{\frac{3}{2}}\right)$.

Now make $x=h$, and we have

$$D=\tfrac{2}{3}l\sqrt{2G}\left(h^{\frac{3}{2}}-\left(\frac{h}{2}\right)^{\frac{3}{2}}\right)=\tfrac{2}{3}l\sqrt{2G}\left(1-(\tfrac{1}{2})^{\frac{3}{2}}\right)h^{\frac{3}{2}}.$$

But

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But $1 - (\frac{1}{2})^{\frac{5}{2}} = 0.04645$, and $\frac{2}{3}$ of this is 0.431: Therefore, finally,

$$D = 0.431\ (\sqrt{2G}h^{\frac{3}{2}} + l).$$

If we now put 26.49 or $26\frac{1}{2}$ for $\sqrt{2G}$, or the velocity with which a head of water of one inch will impel the water over a weir, and multiply this by 0.431, we get the following quantity 11.4172, or, in numbers of easy recollection, $11\frac{1}{2}$, for the cubic inches of water per second, which runs over every inch of a wasteboard when the edge of it is one inch below the surface of the reservoir; and this must be multiplied by $h^{\frac{3}{2}}$, or by the square root of the cube of the head of water. Thus let the edge of the wasteboard be four inches below the surface of the water. The cube of this is 64, of which the square root is eight. There a wasteboard of this depth under the surface, and three feet long, will discharge every second $8 + 36 + 11\frac{1}{2}$ cubic inches of water, or $\frac{8}{10}$ cubic feet, English measure.

The following comparisons will show how much this theory may be depended on. Col. 1. shows the depth of the edge of the board under the surface; 2. shows the discharge by theory; and, 3. the discharge actually observed. The length of the board was $18\frac{1}{3}$ inches. N. B. The numbers in M. Buat's experiments are here reduced to English measure.

D.	*D. Theor*	*D. Exp.*	*E.*
1.778	506	524	28.98
3.199	1222	1218	69.83
4.665	2153	2155	122.03
6.753	3750	3771	214.29

The last column is the cubic inches discharged in a second by each inch of the wasteboard. The correspondence is undoubtedly very great. The greatest error is in the first, which may be attributed to a much smaller lateral contraction under so small a head of water.

But it must be remarked, that the calculation proceeds on two suppositions. The height FI is supposed $\frac{1}{2}$ of BI; and 2G is supposed 726. It is evident, that by increasing the one and diminishing the other, nearly the same answers may be produced, unless much greater variations of h be examined. Both of these quantities are matters of considerable uncertainty, particularly the first; and it must be farther remarked, that this was not measured, but deduced from the uniformity of the experiments. We presume that M. Buat tried various values of G, till he found one which gave the *ratios* of discharge which he observed. We beg leave to observe, that in a set of numerous experiments which we had access to examine, BI was uniformly much less than $\frac{1}{2}$; it was very nearly $\frac{2}{3}$: and the quantity discharged was greater than what would result from M. Buat's calculation. It was farther observed that IF depended very much on the form of the wasteboard. When it was a very thin board of considerable depth, IF was very considerably greater than if the board was thick, or narrow; and set on the top of a broad dam-head, as in fig. 21.

It may be proper to give the formula a form which will correspond to any ratio which experience may discover between BF and IF. Thus, let BI be $\frac{m}{n}$ BF. The formula will be $D = \frac{2}{3}\, l \sqrt{2G}\left(1 - \left(\frac{m}{n}\right)^{\frac{5}{2}}\right) h^{\frac{3}{2}}$.

Meantime, this theory of M. de Buat is of great value to the practical engineer, who at present must content himself with a very vague conjecture, or take the calculation of the erroneous theory of Guglielmini. By that theory, the board of three feet at the depth of four inches, should discharge nearly $3\frac{1}{10}$ cubic feet per second, which is almost double of what it really delivers.

We presume, therefore, that the following table will be acceptable to practical engineers, who are not familiar with such computations. It contains, in the first column, the depth in English inches from the surface of the stagnant water of a reservoir to the edge of the wasteboard. The second column is the cubic feet of water discharged in a minute by every inch of the wasteboard.

Depth.	*Discharge.*
1	0.403
2	1.140
3	2.095
4	3.225
5	4.507
6	5.925
7	7.466
8	9.122
9	10.884
10	12.748
11	14.707
12	16.758
13	18.895
14	21.117
15	23.419
16	25.800
17	28.258
18	30.786

When the depth does not exceed four inches, it will not be exact enough to take proportional parts for the fractions of an inch. The following method is exact.

If they be odd quarters of an inch, look in the table for as many inches as the depth contains quarters, and take the eighth part of the answer. Thus, for $8\frac{3}{4}$ inches, take the eighth part of 23.419, which corresponds to 15 inches. This is 2.927.

If the wasteboard is not on the face of a dam, but in a running stream, we must augment the discharge by multiplying the section by the velocity of the stream. But this correction can seldom occur in practice; because, in this case, the discharge is previously known; and it is h that we want; which is the object of the next problem.

We only beg leave to add, that the experiments which we mention as having been already made in this country, give a result somewhat greater than this table, viz. about $\frac{1}{16}$. Therefore, having obtained the answer by this table, add to its 16th part, and we apprehend that it will be extremely near the truth.

When, on the other hand, we know the discharge over a wasteboard, we can tell the depth of its edge under

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der the surface of the stagnant water of the reservoir, because we have $h = \left(\frac{D}{11\frac{1}{2}l}\right)^{\frac{2}{3}}$ very nearly.

We are now in a condition to solve the problem respecting a weir across a river.

Prob. II. The discharge and section of a river being given, it is required to determine how much the waters will be raised by a weir of the whole breadth of the river, discharging the water with a clear fall, that is, the surface of the water in the lower channel being below the edge of the weir?

In this case we have 2 G=746 nearly, because there will be no contraction at the sides when the weir is the whole breadth of the river. But further, the water is not now stagnant, but moving with the velocity $\frac{D}{S}$, S being the section of the river.

Therefore let a be the height of the weir from the bottom of the river, and h the height of the water above the edge of the weir. We have the velocity with which the water approaches the weir $= \frac{D}{l(a+h)}$, l being the length of the weir or breadth of the river. Therefore the height producing the primary mean velocity is $\left(\frac{D}{l\sqrt{2g}\,(a+h)}\right)^2$. The equation given a little ago will give $h = \left(\frac{D}{0.431\,l\sqrt{2G}}\right)^{\frac{2}{3}}$, when the water above the weir is stagnant. Therefore, when it is already moving with the velocity $\frac{D}{la+h}$, we shall have $h = \left(\frac{D}{0.431\sqrt{2G}}\right)^{\frac{2}{3}} - \left(\frac{D}{l\sqrt{2g}\,(a+h)}\right)^2$. It would be very troublesome to solve this equation regularly, because the unknown quantity h is found in the second term of the answer. But we know that the height producing the velocity above the weir is very small in comparison of h and of a, and, if only estimated roughly, will make a very insensible change in the value of h; and, by repeating the operation, we can correct this value, and obtain h to any degree of exactness.

To illustrate this by an example. Suppose a river, the section of whose stream is 150 feet, and that it discharges 174 cubic feet of water in a second; how much will the waters of this river be raised by a weir of the same width, and 3 feet high?

Suppose the width to be 50 feet. This will give 3 feet for the depth; and we see that the water will have a clear fall, because the lower stream will be the same as before.

The section being 150 feet, and the discharge 174, the mean velocity is $\frac{174}{150}$, = 1.16 feet, = 14 inches nearly, which requires the height of $\frac{1}{4}$ of an inch very nearly. This may be taken for the second term of the value of h. Therefore $h = \left(\frac{D}{0.431\sqrt{2G}\,l}\right)^{\frac{2}{3}} - \frac{1}{4}$. Now $\sqrt{2G}$ is, in the present case, =27.313; l is 600, and D is 174×1728, = 300672. Therefore h=12.192 —0.25,=11.942. Now correct this value of h, by correcting the second term, which is $\frac{1}{4}$ of an inch, instead of $\left(\frac{D}{\sqrt{2g}\,l\,(a+h)}\right)^2$, or 0.141. This will give us h=12.192—0.141, = 12.051, differing from the first value about $\frac{1}{10}$ of an inch. It is needless to carry the approximation farther. Thus we see that a weir which dams up the whole of the former current of three feet deep, will only raise the waters of this river one foot.

The same rule serves for shewing how high we ought to raise this weir in order to produce *any given rise* of the waters, whether for the purposes of navigation, or for taking off a draft to drive mills, or for any other service; for if the breadth of the river remain the same, the water will still flow over the weir with nearly the same depth. A very small and hardly perceptible difference will indeed arise from the diminution of slope occasioned by this rise, and a consequent diminution of the velocity with which the river approaches the weir. But this difference must always be a small fraction of the second term of our answer; which term is itself very small: and even this will be compensated, in some degree, by the freer fall which the water will have over the weir.

If the intended weir is not to have the whole breadth of the river (which is seldom necessary even for the purposes of navigation), the waters will be raised higher by the same height of the wasteboard. The calculation is precisely the same for this case. Only in the second term, which gives the head of water corresponding to the velocity of the river, l must still be taken for the whole breadth of the river, while in the first term l is the length of the wasteboard. Also $\sqrt{2G}$ must be a little less, on account of the contractions at the ends of the weir, unless these be avoided by giving the masonry at the ends of the wasteboard a curved shape on the upper side of the wasteboard. This should not be done when the sole object of the weir is to raise the surface of the waters. Its effect is but trifling at any rate, when the length of the wasteboard is considerable, in proportion to the thickness of the sheet of water flowing over it.

The following comparisons of this rule with experiment will give our readers some notion of its utility.

Discharge of the Weir per second.	Head producing the velocity at the Weir.	Head producing the Velocity above it.	Calculated Height of the River above the Wasteboard.	Observed Height.
Inches.	Inches.	Inches.	Inches.	Inches.
3888	7.302	0.625	6.677	6.583
2462	5.385	0.350	5.035	4.750
1112	3.171	0.116	3.055	3.166
259	1.201	0.0114	1.189	1.250

It was found extremely difficult to measure the exact height of the water in the upper stream above the wasteboard. The curvature AI extended several feet up the stream. Indeed there must be something arbitrary in this measurement, because the surface of the stream is not horizontal. The deviation should be taken, not from a horizontal plane, but from the inclined surface of the river.

It

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It is plain that a river cannot be fitted for continued navigation by WEIRS. These occasion interruptions; but a few inches may sometimes be added to the waters of a river by a BAR, which may still allow a flat-bottomed lighter or a raft to pass over it. This is a very frequent practice in Holland and Flanders; and a very cheap and certain conveyance of goods is there obtained by means of streams which we would think no better than boundary ditches, and unfit for every purpose of this kind. By means of a bar the water is kept up a very few inches, and the stream has free course to the sea. The shoot over the bar is prevented by means of another bar placed a little way below it, lying flat in the bottom of the ditch, but which may be raised up on hinges. The lighterman makes his boat fast to a stake immediately above the bar, raises the lower bar, brings over his boat, again makes it fast, and, having laid down the other bar again, proceeds on his journey. This contrivance answers the end of a lock at a very trifling expence; and though it does not admit of what we are accustomed to call navigation, it gives a very sure conveyance, which would otherwise be impossible. When the waters can be raised by bars, so that they may be drawn off for machinery or other purposes, they are preferable to weirs, because they do not obstruct floating with rafts, and are not destroyed by the ice.

PROB. III. Given the height of a bar, the depth of water both above and below it, and the width of the river; to determine the discharge.

This is by no means so easily solved as the discharge over a weir, and we cannot do it with the same degree of evidence. We imagine, however, that the following observations will not be very far from a true account of the matter.

Fig. 22. We may first suppose a reservoir LFBM (fig. 22.) of stagnant water, and that it has a wasteboard of the height CB. We may then determine, by the foregoing problems, the discharge through the plane EC. With respect to the discharge through the part CA, it should be equal to this product of the part of the section by the velocity corresponding to the fall EC, which is the difference of the heights of water above and below the bar; for, because the difference of E a and C a is equal to EC, every particle a of water in the plane CA is pressed in the direction of this stream with the same force, viz. the weight of the column EC. The sum of these discharges should be the whole discharge over the bar: but since the bar is set up across a running river, its discharge must be the same with that of the river. The water of the river, when it comes to the place of the bar, has acquired some velocity by its slope or other causes, and this corresponds to some height FE. This velocity, multiplied by the section of the river, having the height EB, should give a discharge equal to the discharge over the bar.

To avoid this complication of conditions, we may first compute the discharge of the bar in the manner now pointed out, without the consideration of the previous velocity of the stream. This discharge will be a little too small. If we divide it by the section FB, it will give a primary velocity too small, but not far from the truth. Therefore we shall get the height FE, by means of which we shall be able to determine a velocity intermediate between DG and CH, which would correspond to a weir, as also the velocity CH, which corresponds to the part of the section CA, which is wholly under water. Then we correct all these quantities by repeating the operation with them instead of our first assumptions.

Mr Buat found this computation extremely near the truth, but in all cases a little greater than observation exhibited.

We may now solve the problem in the most general terms.

PROB. IV. Given the breadth, depth, and the slope of a river, if we confine its passage by a bar or weir of a known height and width, to determine the rise of the waters above the bar.

The slope and dimensions of the channel being given, our formula will give us the velocity and the quantity of water discharged. Then, by the preceding problem, find the height of water above the wasteboard. From the sum of these two heights deduct the ordinary depth of the river. The remainder is the rise of the waters. For example:

Let there be a river whose ordinary depth is 3 feet, and breadth 40, and whose slope is 1½ inches in 100 fathoms, or $\frac{1}{4800}$. Suppose a weir on this river six feet high and 18 feet wide.

We must first find the velocity and discharge of the river in its natural state, we have $l=480$ inches, $h=36$, $\frac{1}{s}=\frac{1}{4800}$. Our formula of uniform motion gives $V=23.45$, and $D=405216$ cubic inches.

The contraction obtains here on the three sides of the orifice. We may therefore take $\sqrt{2G}=26.1$.—*N.B.* This example is Mr Buat's, and all the measures are French. We have also a (the height of the weir) 72, and $2g=724$. Therefore the equation $h=\left(\frac{D}{0.431\sqrt{2G}l}\right)^{\frac{2}{3}}-\left(\frac{D}{l\sqrt{2g}(a+h)}\right)^2$ becomes 30.182. Add this to the height of the weir, and the depth of the river above the sluice is 102.182, = 8 feet and 6.182 inches. From this take 3 feet, and there remains 5 feet and 6.182 inches for the rise of the waters.

There is, however, an important circumstance in this rise of the waters, which must be distinctly understood before we can say what are the interesting effects of this weir. This swell extends, as we all know, to a considerable distance up the stream, but is less sensible as we go away from the weir. What is the distance to which the swell extends, and what increase does it produce in the depth at different distances from the weir?

If we suppose that the slope and the breadth of the channel remain as before, it is plain, that as we come down the stream from that point where the swell is insensible, the depth of the channel increases all the way to the dam. Therefore, as the same quantity of water passes through every section of the river, the velocity must diminish in the same proportion (very nearly) that the section increases. But this being an open stream, and therefore the velocity being inseparably connected with the slope of the surface, it follows, that the slope of the surface must diminish all the way from that point where the swell of the water is insensible to the dam. The surface, therefore, cannot be a simple inclined plane, but must be concave upwards, as represented in fig. 23. where FKLB represents the channel of Fig. 23.

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of a river, and FB the surface of the water running in it. If this be kept up to A by a weir AL, the surface will be a curve FIA, touching the natural surface F at the beginning of the swell, and the line AD which touches it in A will have the slope S corresponding to the velocity which the waters have immediately before going over the weir. We know this slope, because we are supposed to know the discharge of the river and its slope and other circumstances before barring it with a dam; and we know the height of the dam H, and therefore the new velocity at A, or immediately above A, and consequently the slope S. Therefore, drawing the horizontal lines DC, AG, it is plain that CB and CA will be the primary slope of the river, and the slope S corresponding to the velocity in the immediate neighbourhood of A, because these verticles have the same horizontal distance DC. We have therefore CB : CA $=S : s$ very nearly, and $S-s : s=CB-CA : CA$, $=A$ (nearly): CA. Therefore $CA = \frac{AB \times s}{S-s}$, $= \frac{H\,s}{S-s}$. But $CA=GA \times S$, by our definition of slope; therefore $DA= \frac{H.S.s}{S-s}$.

This is all that we can say with precision of this curve. Mr Buat examined what would result from supposing it an arch of a circle. In this case we should have DA=DF, and AF very nearly equal to 2 AD: and as we can thus find AD, we get the whole length FIA of the swell, and also the distances of any part of the curve from the primitive surface FB of the river; for these will be very nearly in the duplicate proportion of their distances from F. Thus ID will be one-fourth of AB, &c. Therefore we should obtain the length I*d* of the stream in that place. Getting the depth of the stream, and knowing the discharge, we get the velocity, and can compare this with the slope of the surface at I. This should be the slope of that part of the arch of the circle. Making this comparison, he found these circumstances to be incompatible. He found that the section and swell at I, corresponding to an arch of a circle, gave a discharge nearly one-fourth too great (they were as 405216 to 492142). Therefore the curve is such, that AD is greater than DF, and that it is more incurvated at F than at A. He found, that making DA to DF as 10 to 9, and the curve FIA an arch of an ellipse whose longer axis was vertical, would give a very nice correspondence of the sections, velocities, and slopes. The whole extent of the swell, therefore, can never be double of AD, and must always greatly surpass AD; and these limits will do very well for every practical question. Therefore making DF nine-tenths of AD, and drawing the chord AD, and making DI one-half of D *i*, we shall be very near the truth. Then we get the swell with sufficient precision for any point H between F and D, by making $FD^2 : FH^2=ID : Hh$; and if H is between D and A, we get its distance from the tangent DA by a similar process.

It only remains to determine the swell produced in the waters of a river by the erection of a bridge or cleaning sluice which contracts the passage. This requires the solution of

Prob. V. Given the depth, breadth, and slope of a river, to determine the swell occasioned by the piers of a bridge or sides of a cleaning sluice, which contract the passage by a given quantity, for a given length of channel.

This swell depends on two circumstances.

1. The whole river must pass through a narrow space, with a velocity proportionably increased; and this requires a certain head of water above the bridge.

2. The water, in passing the length of the piers with a velocity greater than that corresponding to the primary slope of the river, will require a greater slope in order to acquire this velocity.

Let V be the velocity of the river before the erection of the bridge, and K the quotient of the width of the river divided by the sum of the widths between the piers. If the length of the piers, or their dimension in the direction of the stream, is not very great, KV will nearly express the velocity of the river under the arches; and if we suppose for a moment the contraction (in the sense hitherto used) to be nothing, the height producing this velocity will be $\frac{K^2V^2}{2g}$. But the river will not rise so high, having already a slope and velocity before getting under the arches, and the height corresponding to this velocity is $\frac{V^2}{2g}$; therefore the height for producing the augmentation of velocity is $\frac{K^2V^2}{2g} - \frac{V^2}{2g}$. But if we make allowances for contraction we must employ a 2 G less than 2 *g*, and we must multiply the height now found by $\frac{2g}{2G}$. It will then become $\left(\frac{K^2V^2}{2g} - \frac{V^2}{2g}\right)\frac{2g}{2G} = \frac{V^2}{2G}(K^2-1)$. This is that part of the swell which must produce the augmentation of velocity.

With respect to what is necessary for producing the additional slope between the piers, let *p* be the natural slope of the river (or rather the difference of level in the length of the piers) before the erection of the bridge, and corresponding to the velocity V; K *p* will very nearly express the difference of superficial level for the length of the piers, which is necessary for maintaining the velocity KV through the same length. The *increase* of slope therefore is $K^2 p - p = p(K^2-1)$. Therefore the whole swell will be $\left(\frac{V^2}{2G} + p\right)\overline{K^2-1}$.

109 Further attention to the subject recommended.

These are the chief questions or problems on this subject which occur in the practice of an engineer; and the solutions which we have given may in every case be depended on as very near the truth, and we are confident that the errors will never amount to one-fifth of the whole quantity. We are equally certain, that of those who call themselves engineers, and who, without hesitation, undertake jobs of enormous expence, not one in ten is able even to guess at the result of such operations, unless the circumstances of the case happen to coincide with those of some other project which he has executed, or has distinctly examined; and very few have the sagacity and penetration necessary for appreciating the effects of the distinguishing circumstances which yet remain. The society established for the encouragement

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courage ment of arts and manufactures could scarcely do a more important service to the public in the line of their institution, than by publishing in their Transactions a description of every work of this kind executed in the kingdom, with an account of its performance. This would be a most valuable collection of experiments and facts. The unlearned practitioner would find among them something which resembles in its chief circumstances almost any project which could occur to him in his business, and would tell him what to expect in the case under his management; and the intelligent engineer, assisted by mathematical knowledge, and the habit of classing things together, would frequently be able to frame general rules. To a gentleman qualified as was the Chevalier de Buat, such a collection would be inestimable, and might suggest a theory as far superior to this as he has gone before all other writers.

110 Modes of making small rivers and brooks fit for inland navigation.

We shall conclude this article with some observations on the methods which may be taken for rendering small rivers and brooks fit for inland navigation, or at least for floatage. We get much instruction on this subject from what has been said concerning the swell produced in a river by weirs, bars, or any diminution of its former section. Our knowledge of the form which the surface of this swell affects, will furnish rules for spacing these obstructions in such a manner, and at such distances from each other, that the swell produced by one shall extend to the one above it.

If we know the slope, the breadth, and the depth of a river, in the droughts of summer, and have determined on the height of the flood-gates, or keeps, which are to be set up in its bed, it is evident that their stations are not matters of arbitrary choice, if we would derive the greatest possible advantage from them.

Some rivers in Flanders and Italy are made navigable in some sort by simple sluices, which, being shut, form magazines of water, which, being discharged by opening the gates, raises the inferior reach enough to permit the passage of the craft which are kept on it. After this momentary rise the keeps are shut again, the water sinks in the lower reach, and the lighters which were floated through the shallows are now obliged to draw into those parts of the reach where they can lie afloat till the next supply of water from above enables them to proceed. This is a very rude and imperfect method, and unjustifiable at this day, when we know the effect of locks, or at least of double gates. We do not mean to enter on the consideration of these contrivances, and to give the methods of their construction, in this place, but refer our readers to what has been already said on this subject in the articles Canal, Lock, Navigation (*Inland*), and to what will be said in the article *Water-Works*. At present we confine ourselves to the single point of husbanding the different falls in the bed of the river, in such a manner that there may be every where a sufficient depth of water: and, in what we have to deliver on the subject, we shall take the form of an example to illustrate the application of the foregoing rules.

Suppose then a river 40 feet wide and 3 feet deep in the droughts of summer, with a slope of 1 in 4800. This, by the formula of uniform motion, will have a velocity $=23\frac{1}{2}$ inches per second, and its discharge will be 405216 cubic inches, or $234\frac{1}{2}$ feet. It is proposed to give this river a depth not less than five feet in any place, by means of flood-gates of six feet high and 18 feet wide.

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We first compute the height at which this body of $234\frac{1}{2}$ cubic feet of water will discharge itself over the flood-gates. This we shall find by Prob. II. to be $30\frac{1}{4}$ inches, to which adding 72, the height of the gate, we have $102\frac{1}{4}$ for the whole height of the water above the floor of the gate: the primitive depth of the river being 3 feet, the rise or swell 5 feet $6\frac{1}{4}$ inches. In the next place, we find the range or sensible extent of this swell by Prob. I. and the observations which accompany it. This will be found to be nearly 9177 fathoms. Now since the primitive depth of the river is three feet, there is only wanted two feet of addition; and the question is reduced to the finding what point of the curved surface of the swell is two feet above the tangent plane at the head of the swell? or how far this point is from the gate? The whole extent being 9177 fathoms, and the deviations from the tangent plane being nearly in the duplicate ratio of the distances from the point of contact, we may institute this proportion $66\frac{1}{4} : 24 = 9177^2 : 5526^2$. The last term is the distance (from the head of the swell) of that part of the surface which is two feet above the primitive surface of the river. Therefore $9177 - 5526$, or 3651 fathoms, is the distance of this part from the flood-gate; and this is the distance at which the gates should be placed from each other. No inconvenience would arise from having them nearer, if the banks be high enough to contain the waters; but if they are farther distant, the required depth of water cannot be had without increasing the height of the gates; but if reasons of convenience should induce us to place them nearer, the same depth may be secured by lower gates, and no additional height will be required for the banks. This is generally a matter of moment, because the raising of water brings along with it the chance of flooding the adjoining fields. Knowing the place where the swell ceases to be sensible, we can keep the top of the intermediate flood-gate at the precise height of the curved surface of the swell by means of the proportionality of the deviations from the tangent to the distances from the point of contact.

But this rule will not do for a gate which is at a greater distance from the one above it than the 3651 fathoms already mentioned. We know that a higher gate is required, producing a more extensive swell; and the one swell does not coincide with the other, although they may both begin from the same point A (fig. 24.). Fig. 23
Nor will the curves even be similar, unless the thickness of the sheet of water flowing over the gate be increased in the same ratio. But this is not the case; [illegible] the produce of the river, and therefore the thickness of the sheet of water, is constant.

But we may suppose them similar without erring more than two or three decimals of an inch; and then we shall have $AF : AL = \sqrt{F} : DL$; from which, if we take the thickness of the sheet of water already calculated for the other gates, there will remain the height of the gate BL.

By following these methods, instead of proceeding by random guesses, we shall procure the greatest depth of water at the smallest expence possible.

but

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111 Effects of freshes,

But there is a circumstance which must be attended to, and which, if neglected, may in a short time render all our works useless. These gates must frequently be open in the time of freshes; and as this channel then has its natural slope increased in every reach by the great contraction of the section in the gates, and also rolls along a greater body of water, the action of the stream on its bed must be increased by the augmentation of velocity which these circumstances will produce: and although we may say that the general slope is necessarily secured by the cills of the flood-gates, which are paved with stone or covered with planks, yet this will not hinder this increased current from digging up the bottom in the intervals, undermining the banks, and lodging the mud and earth thus carried off in places where the current meets with any check. All these consequences will assuredly follow if the increased velocity is greater than what corresponds to the regimen relative to the soil in which the river holds on its course.

112 and of local circumstances,

In order therefore to procure durability to works of this kind, which are generally of enormous expence, the local circumstances must be most scrupulously studied. It is not the ordinary hurried survey of an engineer that will free us from the risk of our navigation becoming very troublesome by the rise of the waters being diminished from their former quantity, and banks formed at a small distance below every sluice. We must attentively study the nature of the soil, and discover experimentally the velocity which is not inconsistent with the permanency of the channel. If this be not a great deal less than that of the river when accelerated by freshes, the regimen may be preserved after the establishment of the gate, and no great changes in the channel will be necessary: but if, on the other hand, the natural velocity of the river during its freshes greatly exceeds what is consistent with stability, we must enlarge the width of the channel, that we may diminish the hydraulic mean depth, and along with this the velocity. Therefore, knowing the quantity discharged during the freshes, divide it by the velocity of regimen, or rather by a velocity somewhat greater (for a reason which will appear by and by), the quotient will be the area of a new section. Then taking the natural slope of the river for the slope which it will preserve in this enlarged channel, and after the cills of the flood-gates have been fixed, we must calculate the hydraulic mean depth and then the other dimensions of the channel. And, lastly, from the known dimensions of the channel and the discharge (which we must now compute), we proceed to calculate the height and the distances of the flood-gates, adjusted to their widths, which must be regulated by the room which may be thought proper for the free passage of the lighters which are to ply on the river. An example will illustrate the whole of this process.

113 illustrated by an example.

Suppose then a small river having a slope of two inches in 100 fathoms or $\frac{1}{3600}$, which is a very usual declivity of such small streams, and whose depth in summer is two feet, but subject to floods which raise it to nine feet. Let its breadth at the bottom be 18 feet, and the base of its slanting sides four-thirds of their height. All of these dimensions are very conformable to the ordinary course of things. It is proposed to make this river navigable in all seasons by means of keeps and gates placed at proper distances; and we want to know the dimensions of a channel which will be permanent, in a soil which begins to yield to a velocity of 80 inches per second, but will be safe under a velocity of 24.

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The primitive channel having the properties of a rectangular channel, its breadth during the freshes must be B=30 feet, or 360 inches, and its depth h nine feet or 108 inches; therefore its hydraulic mean depth $d=\frac{Bh}{B+2h}=61.88$ inches. Its real velocity therefore, during the freshes, will be 38.9447 inches, and its discharge 1514169 cubic inches, or 876¼ cubic feet per second. We see therefore that the natural channel will not be permanent, and will be very quickly destroyed or changed by this great velocity. We have two methods for procuring stability, viz. diminishing the slope, or widening the bed. The first method will require the course to be lengthened in the proportion of 24^2 to 3988^2, or nearly of 36 to 100. The expence of this would be enormous. The second method will require the hydraulic mean depth to be increased nearly in the same proportion (because the velocities are nearly as $\frac{\sqrt{d}}{\sqrt{s}}$). This will evidently be much less costly, and, even to procure convenient room for the navigation, must be preferred.

We must now observe, that the great velocity, of which we are afraid, obtains only during the winter floods. If therefore we reduce this to 24 inches, it must happen that the autumnal freshes, loaded with sand and mud, will certainly deposit a part of it, and choke up our channel below the flood-gates. We must therefore select a mean velocity somewhat exceeding the regimen, that it may carry off these depositions. We shall take 27 inches, which will produce this effect on the loose mud without endangering our channel in any remarkable degree.

Therefore we have, by the theorem for uniform motion, $V=27, =\frac{297\,(\sqrt{d}-0.1)}{\sqrt{s}-L\sqrt{s}+1.6}0.3\left(\sqrt{s}-0.1\right)$.

Calculating the divisor of this formula, we find it $=55.884$. Hence $\sqrt{d}-0.1=\frac{\frac{27\text{ inch.}}{297}}{55.884}0.3=5.3483$, and therefore $d=30\frac{1}{12}$. Having thus determined the hydraulic mean depth, we find the area S of the section by dividing the discharge 1514169 by the velocity 27. This gives us 56080.368. Then we get the breadth B by the formula formerly given $B=\sqrt{\left(\frac{S}{2d}\right)^2-2S}+\frac{S}{2d}$, $=1802.296$ inches, or 150.19 feet, and the depth $h=31.115$ inches.

With these dimensions of the section we are certain that the channel will be permanent; and the cills of the flood-gate being all fixed agreeable to the primitive slope, we need not fear that it will be changed in the intervals by the action of the current. The gates being all open during the freshes, the bottom will be cleared of the whole deposited mud

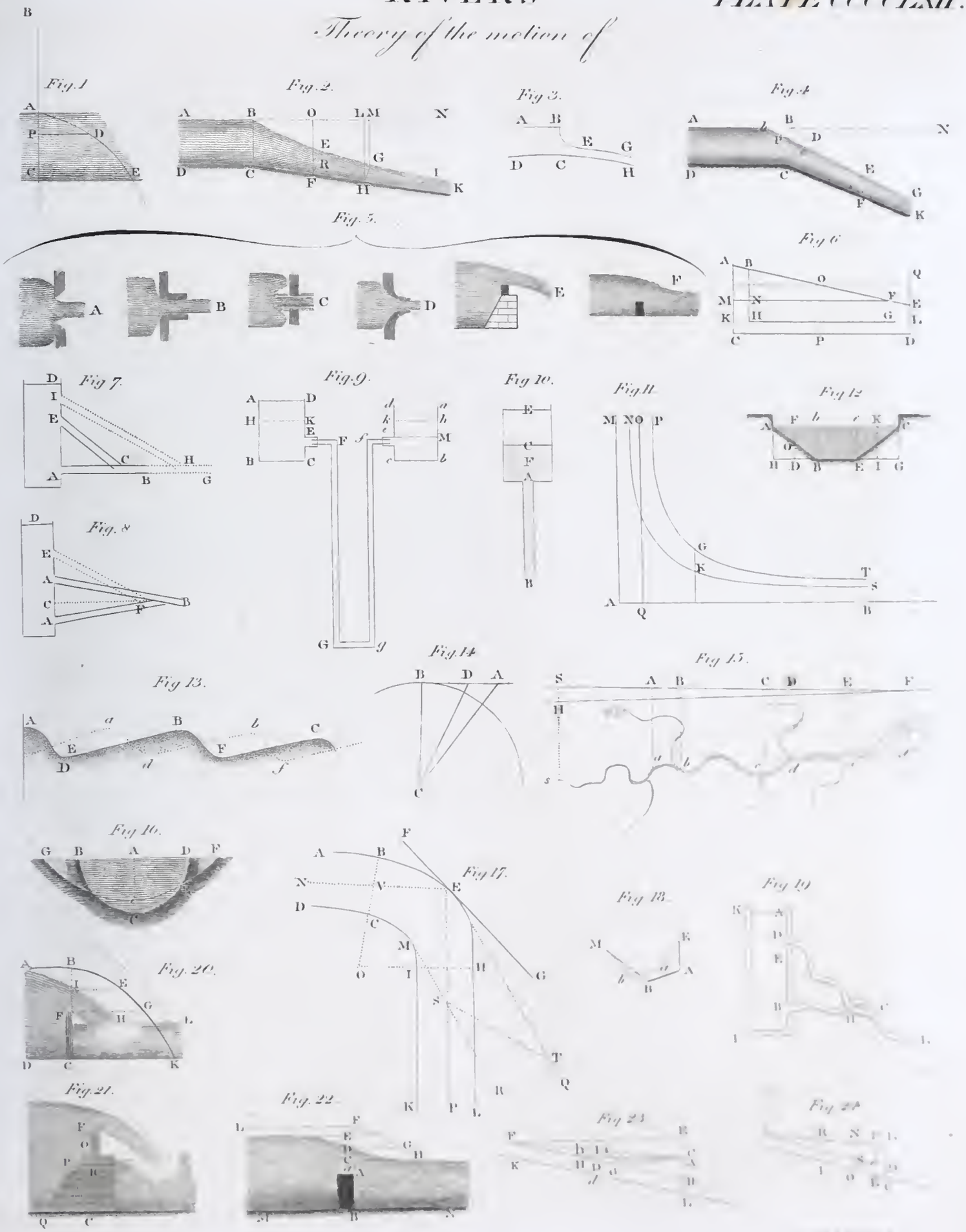
114 Station of the flood-gates, &c.

We must now station the flood-gates along the new channel, at such distances that we may have the depth of water which is proper for the lighters that are to be employed

RIVERS

PLATE CCCLXII.

Theory of the motion of



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employed in the navigation. Suppose this to be four feet. We must first of all learn how high the water will be kept in this new channel during the summer droughts. There remained in the primitive channel only two feet, and the section in this case had 20 feet eight inches mean width; and the discharge corresponding to this section and slope $\frac{1}{3000}$ is, by the theorem of uniform motion, 130,849 cubic inches per second. To find the depth of water in the new channel corresponding to this discharge and the same slope, we must take the method of approximation formerly exemplified, remembering that the discharge D is 130849, and the breadth B is 1760.8 at the bottom (the slant sides being four-thirds). These data will produce a depth of water $= 6\frac{1}{3}$ inches. To obtain four feet therefore behind any of the flood-gates, we must have a swell of $41\frac{2}{3}$ inches produced by the gate below.

We must now determine the width of passage which must be given at the gates. This will regulate the thickness of the sheet of water which flows over them when shut; and this, with the height of the gate, fixes the swell at the gate. The extent of this swell, and the elevation of every point of its curved surface above the new surface of the river, require a combination of the height of swell at the flood-gate, with the primitive slope and the new velocity. These being computed, the stations of the gates may be assigned, which will secure four feet of water behind each in summer. We need not give these computations, having already exemplified them all with relation to another river.

This example not only illustrates the method of proceeding, so as to be ensured of success, but also gives us a precise instance of what must be done in a case which cannot but frequently occur. We see what a prodigious excavation is necessary, in order to obtain permanency. We have been obliged to enlarge the primitive bed to about thrice its former size, so that the excavation is at least two-thirds of what the other method required. The expence, however, will still be vastly inferior to the other, both from the nature of the work and the quantity of ground occupied. At all events, the expence is enormous, and what could never be repaid by the navigation, except in a very rich and populous country.

There is another circumstance to be attended to.—The navigation of this river by sluices must be very desultory, unless they are extremely numerous, and of small heights. The natural surface of the swell being concave upwards, the additions made by its different parts to the primitive height of the river decrease rapidly as they approach to the place A (fig. 23.) where the swell terminates; and three gates, each of which raises the water one foot when placed at the proper distance from each other, will raise the water much more than two gates at twice this distance, each raising the water two feet. Moreover, when the elevation produced by a flood-gate is considerable, exceeding a very few inches, the fall and current produced by the opening of the gate is such, that no boat can possibly pass up the river, and it runs imminent risk of being overset and sunk, in the attempt to go down the stream. This renders the navigation desultory. A number of lighters collect themselves at the gates, and wait their opening. They pass through as soon as the current becomes moderate. This would not, perhaps, be very hurtful in a regulated navigation, if they could then proceed on their voyage. But the boats bound up the river must stay on the upper side of the gate which they have just now passed, because the channel is now too shallow for them to proceed. Those bound down the river can only go to the next gate, unless it has been opened at a time nicely adjusted to the opening of the one above it. The passage downwards *may*, in many cases, be continued, by very intelligent and attentive lockmen; but the passage up *must* be exceedingly tedious. Nay, we may say, that *while* the passage downwards is continuous, it is but in a very few cases that the passage upward is practicable. If we add to these inconveniences the great danger of passes during the freshes, while all the gates are open, and the immense and unavoidable accumulations of ice, on occasion even of slight frosts, we may see that this method of procuring an inland navigation is amazingly expensive, desultory, tedious, and hazardous. It did not therefore merit, on its own account, the attention we have bestowed on it. But the discussion was absolutely necessary, in order to show what must be done in order to obtain effect and permanency, and thus to prevent us from engaging in a project which, to a person not duly and confidently informed, is so feasible and promising. Many professional engineers are ready, and with honest intentions, to undertake such tasks; and by avoiding this immense expence, and contenting themselves with a much narrower channel, they succeed, (witness the old navigation of the river Mersey). But the work has no duration; and, not having been found very serviceable, its cessation is not matter of much regret. The work is not much spoken of during its continuance. It is soon forgotten, as well as its failure, and engineers are found ready to engage for such another.

116 Introduction of locks.

It was not a very refined thought to change this imperfect mode for another free from most of its inconveniences. A boat was brought up the river, through one of these gates, only by raising the waters of the inferior reach, and depressing those of the upper: and it could not escape observation, that when the gates were far asunder, a vast body of water must be discharged before this could be done, and that it would be a great improvement to double each gate, with a very small distance between. Thus a very small quantity of water would fill the interval to the desired height, and allow the boat to come through: and this thought was the more obvious, from a similar practice having preceded it, viz. that of navigating a small river by means of double bars, the lowest of which lay flat in the bottom of the river, but could be raised up on hinges. We have mentioned this already; and it appears to have been an old practice, being mentioned by Stevinus in his valuable work on sluices, published about the beginning of the 17th century; yet no trace of this method is to be found of much older dates. It occurred, however, accidentally, pretty often in the flat countries of Holland and Flanders, which being the seat of frequent wars, almost every town and village was fortified with wet ditches, connected with the adjoining rivers. Stevinus mentions particularly the works of Condé, as having been long employed, with great ingenuity, for rendering navigable a very long stretch of the Scheldt. The boats were received into the lower part of the fossee, which was separated from the rest by a stone batardeau, serving to keep

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keep up the waters in the rest of the fossee about eight feet. In this was a sluice and another dam, by which the boats could be taken into the upper fossee, which communicated with a remote part of the Scheldt by a long canal. This appears to be one of the earliest locks.

In the first attempt to introduce this improvement in the navigation of rivers already kept up by weirs, which gave a partial and interrupted navigation, it was usual to avoid the great expence of the second dam and gate, by making the lock altogether detached from the river, within land, and having its bason parallel to the river, and communicating by one end with the river above the weir, and by the other end with the river below the weir, and having a flood-gate at each end.—This was a most ingenious thought; and it was a prodigious improvement, free from all the inconveniences of currents, ice, &c. &c. It was called a *schlussel*, or lock, with considerable propriety; and this was the origin of the word *sluice*, and of our application of its translation *lock*. This practice being once introduced, it was not long before engineers found that a complete separation of the navigation from the bed of the river was not only the most perfect method for obtaining a sure, easy, and uninterrupted navigation, but that it was in general the most economical in its first construction, and subject to no risk of deterioration by the action of the current, which was here entirely removed. Locked canals, therefore, have almost entirely supplanted all attempts to improve the natural beds of rivers; and this is hardly ever attempted except in the flat countries, where they can hardly be said to differ from horizontal canals. We therefore close with these observations this article, and reserve what is yet to be said on the construction of canals and locks for the article WATER-WORKS.

116 Concluding observations to the reader.

We beg leave, however, to detain the reader for a few moments. He cannot but have observed our anxiety to render this dissertation worthy of his notice, by making it practically useful. We have on every occasion appealed, from all theoretical deductions, however specious and well supported, to fact and observation of those spontaneous phenomena of nature which are continually passing in review before us in the motion of running waters. Resting in this manner our whole doctrines on experiment, on the observation of what really happens, and what happens in a way which we cannot or do not fully explain, these spontaneous operations of nature came insensibly to acquire a particular value in our imagination. It has also happened in the course of our reflections on these subjects, that these phenomena have frequently presented themselves to our view in groups, not less remarkable for the extent and the importance of their consequences than for the simplicity, and frequently the seeming insignificancy, nay frivolity, of the means employed. Our fancy has therefore been sometimes warmed with the view of a something; an

Ens agitans molem, et magno se corpore miscens.

This has sometimes made us express ourselves in a way that is susceptible of misinterpretation, and may even lead into a mistake of our meaning.

We therefore find ourselves obliged to declare, that by the term NATURE, which we have so frequently used *con amore*, we do not mean that indescribable idol which the self-conceit and vanity of some philosophers or pretended philosophers have set up and ostentatiously worshipped, that *ens rationis*, that creature of the imagination, which has long been the object of cool contemplation in the closet of the philosopher, and has shared his attention with many other playthings of his ever-working fancy. By NATURE, then, we mean that admirable system of general laws, by which the adored Author and Governor of the universe has thought fit to connect the various parts of this wonderful and goodly frame of things, and to regulate all their operations.

We are not afraid of continually appealing to the laws of nature: and as we have already observed in the article PHILOSOPHY, we consider these general laws as the most magnificent displays of Infinite Wisdom, and the contemplation of them as the most cheering employment of our understandings.

Igneus est illis vigor et cœlestis origo
Seminibus.

At the same time we despise the cold-hearted philosopher who stops short here, and is satisfied (perhaps inwardly pleased) that he has completely accounted for every thing by the laws of unchanging nature; and we suspect that this philosopher would analyse with the same frigid ingenuity, and explain by irresistible ϛοργη, the tender attachment of her whose breast he sucked, and who by many anxious and sleepless nights preserved alive the puling infant. But let us rather listen to the words of him who was the most sagacious observer and the most faithful interpreter of nature's laws, our illustrious countryman Sir Isaac Newton. He says,

"Elegantissima hæcce rerum compages non nisi consilio et *dominio* entis sapientissimi et potentissimi oriri potuit. Omnia, simili constructa consilio, suberunt *unius* dominio. Hic omnia regit, non ut *anima mundi*, sed ut universorum dominus. Propter dominium suum dominus deus, παντοκρατωρ nuncupatur. Deus ad servientes respicit, et *deitas* est dominatio dei, non in corpus proprium, uti sentiunt quibus deus est natura seu anima mundi, sed in servos. Deus summus est ens eternum, infinitum, absolute perfectum. Ens utcunque perfectum, at sine dominio, non est dominus deus.

"Hunc cognoscimus, solummodo per proprietates ejus et attributa. Attribuuntur ut ex phenomenis dignoscuntur. Phenomena sunt sapientissimæ et optimæ rerum structuræ, atque causæ finales.—Hunc admiramur ob perfectiones; hunc veneramur et colimus ob dominium."

Our readers will probably be pleased with the following list of authors who have treated professedly of the motions of rivers: Guglielmini *De Fluviis et Castellis Aquarum—Danubius Illustratus*; Grandi *De Castellis*; Zendrini *De Motu Aquarum*; Frisius *de Fluviis*; Lecchi *Idrostatica i Idraulica*; Michelotti *Sperienze Idrauliche*; Belidor's *Architecture Hydraulique*; Bossut *Hydrodynamique*; Buat *Hydraulique*; Silberschlag *Theorie des Fleuves*; *Lettres de* M. L'Epinasse *au P. Frisi touchant sa Theorie des Fleuves*; *Tableau des principales Rivieres du Monde, par* Genetté; Stevins *sur les Ecluses*; *Traité des Ecluses, par* Boulard, *qui a remporté le Prix de*

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de l'Acad. de Lyons; Bleiswyck *Dissertatio de Aggeribus;* Bossut *et* Viallet *sur la Construction des Digues;* Stevin *Hydrostatica;* Tielman van der Horst *Theatrum Machinarum Universale;* De la Lande *sur la Canaux de Navigation;* Racolta di Autori *chi Trattano del Moto dell' Acque,* 3 tom. 4to. Firenza 1723.—This most valuable collection contains the writings of Archimedes, Albizi, Galileo, Castelli, Michelini, Borelli, Montanari, Viviani, Cassini, Guglielmini, Grandi, Manfredi, Picard, and Narduci; and an account of the numberless works which have been carried on in the embankment of the Po.

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ROA

River-Water. || Road.

River-Water. This is generally much softer and better accommodated to economical purposes than spring-water. For though rivers proceed originally from springs, yet, by their rapid motion, and by being exposed during a long course to the influence of the sun and air, the earthy and metallic salts which they contain are decomposed, the acid flies off, and the terrestrial parts precipitate to the bottom. Rivers are also rendered softer by the vast quantity of rain-water, which, passing along the surface of the earth, is conveyed into their channels. But all rivers carry with them a great deal of mud and other impurities; and when they flow near large and populous towns, they become impregnated with a number of heterogeneous substances, in which state the water is certainly unfit for many purposes; yet by remaining for some time at rest, all the feculencies subside, and the water becomes sufficiently pure for most of the common purposes of life. River water may be rendered still purer by filtration through sand and gravel; a method which was first resorted to in Paisley, and more lately in Glasgow, for supplying the inhabitants of those towns with good water.

RIVERS, Earl. See Wodevile.

RIVINA, a genus of plants belonging to the tetrandria class. See Botany *Index.* This plant is called *Solonides* by Tournefort, and *Piercea* by Miller. There are four species which grow naturally in most of the islands of the West Indies. The juice of the berries of one species will stain paper and linen of a bright red colour, and many experiments made with it to colour flowers have succeeded extremely well in the following manner: the juice of the berries was pressed out, and mixed with common water, putting it into a phial, shaking it well together for some time, till the water was thoroughly tinged; then the flowers, which were white and just fully blown, were cut off, and their stalks placed into the phial; and in one night the flowers have been finely variegated with red; the flowers on which the experiments were made were the tuberose, and the double white narcissus.

RIVULET, a diminutive of river. See River.

ROACH. See Cyprinus, Ichthyology *Index.*

ROAD, an open way, or public passage, forming a communication between one place and another.

Of all the people in the world the Romans took the most pains in forming roads; and the labour and expences they were at in rendering them spacious, firm, straight, and smooth, are incredible. They usually strengthened the ground by ramming it, laying it with flints, pebbles, or sands, and sometimes with a lining of masonry, rubbish, bricks, &c. bound together with mortar. In some places in the Lyonois, F. Menestrier observes, that he has found huge clusters of flints cemented with lime, reaching 10 or 12 feet deep, and making a mass as hard and compact as marble; and which, after resisting the injuries of time for 1600 years, is still scarcely penetrable by all the force of hammers, mattocks, &c. and yet the flints it consists of are not bigger than eggs. The most noble of the Roman roads was the Via Appia, which was carried to such a vast length, that Procopius reckons it five days journey to the end of it, and Leipsius computes it at 350 miles: it is 12 feet broad, and made of square free-stone generally a foot and a half on each side; and though this has lasted for above 1800 years, yet in many places it is for several miles together as entire as when it was first made.

Road.

The ancient roads are distinguished into military roads, double roads, subterraneous roads, &c. The military roads were grand roads, formed by the Romans for marching their armies into the provinces of the empire; the principal of these Roman roads in England are Watling-street, Ikenild-street, Foss-way, and Erminage-street. Double roads among the Romans, were roads for carriages, with two pavements, the one for those going one way, and the other for those returning the other: these were separated from each other by a causeway raised in the middle, paved with bricks, for the conveniency of foot passengers; with borders and mounting stones from space to space, and military columns to mark the distance. Subterraneous roads are those dug through a rock, and left vaulted; as that of Puzzuoli near Naples, which is near half a league long, and is 15 feet broad and as many high.

The first law enacted respecting highways and roads in England was in the year 1285; when the lords of the soil were enjoined to enlarge those *ways* where bushes, woods, or ditches be, in order to prevent robberies. The next law was made by Edward III. in the year 1346; when a commission was granted by the king to lay a toll on all sorts of carriages passing from the hospital of St Giles in the fields to the bar of the Old Temple, and also through another highway called Portpool (now Gray's Inn Lane) joined to the before-named highway; which roads were become almost impassable. Little further relating to this subject occurs, till the reign of Henry VIII. when the parishes were intrusted with the care of the roads, and surveyors were annually elected to take care of them. But the increase of luxury and commerce introduced such a number of heavy carriages for the conveyance of goods, and lighter ones for the convenience and ease of travelling, that parish aid was found insufficient to keep the best frequented roads in repair. This introduced toll-gates or turnpikes; that something might be paid towards their support by every individual who enjoyed the benefit of these improvements, by passing over the roads.

Speaking of roads, the abbé Raynal justly remarks,

"Let us travel over all the countries of the earth, and wherever we shall find no facility of trading from a city to a town, and from a village to a hamlet, we may pronounce the people to be barbarians; and we shall only be deceived respecting the degree of barbarism."

Road, in *Navigation*, a bay, or place of anchorage, at some distance from the shore, whither ships or vessels occasionally repair to receive intelligence, orders, or necessary supplies; or to wait for a fair wind, &c. The excellence of a road consists chiefly in its being protected from the reigning winds and the swell of the sea; in having a good anchoring-ground, and being at a competent distance from the shore. Those which are not sufficiently inclosed are termed *open roads*.

ROAN, in the manege. A *roan* horse is one of a bay, sorrel, or black colour, with gray or white spots interspersed very thick. When this party-coloured coat is accompanied with a black head and black extremities, he is called *a roan horse with a black-a-moor's head*: and if the same mixture is predominant upon a deep sorrel, he is called *claret-roan*.

ROANOAK, an island of North America, near the coast of North Carolina. Here the English first attempted to settle in 1585, but were obliged to leave it for want of provisions. E. Long. 75. 0. N. Lat. 35. 40.

Roanoak, a river of North America, which rises in Virginia, runs through Carolina, and at length falls into the sea, where it forms a long narrow bay called *Albemarle sound*.

ROASTING, in metallurgic operations, signifies the dissipation of the volatile parts of an ore by means of heat. See Ores, Reduction of.

ROB, in *Pharmacy*, the juices of fruits purified and inspissated till it is of the consistence of honey.

ROBBERY, the *rapina* of the civilians, is the felonious and forcible taking, from the person of another, of goods or money to any value, by violence or putting him in fear. 1. There must be a taking, otherwise it is no robbery. A mere attempt to rob was indeed held to be felony so late as Henry IVth's time; but afterwards it was taken to be only a misdemeanour, and punishable with fine and imprisonment; till the statute 7 Geo. II. c. 21. which makes it a felony (transportable for seven years) unlawfully and maliciously to assault another, with any offensive weapon or instrument;—or by menaces, or by other forcible or violent manner, to demand any money or goods; with a felonious intent to rob. If the thief, having once taken a purse, returns it, still it is a robbery: and so it is whether the taking be strictly from the person of another, or in his presence only; as where a robber by menaces and violence puts a man in fear, and drives away his sheep or his cattle before his face. 2. It is immaterial of what value the thing taken is: a penny, as well as a pound, thus forcibly extorted, makes a robbery. 3. Lastly, the taking must be by force, or a previous putting in fear; which makes the violation of the person more atrocious than privately stealing. For, according to the maxim of the civil law, "*qui vi rapuit, fur improbior esse videtur.*" This previous violence, or putting in fear, is the criterion that distinguishes robbery from other larcenies. For if one privately steals sixpence from the person of another, and afterwards keeps it by putting him in fear, this is no robbery; for the fear is subsequent; neither is it capital as privately stealing, being under the value of twelvepence. Not that it is indeed necessary, though usual, to lay in the indictment that the robbery was committed by *putting in fear*: it is sufficient, if laid to be done by *violence*. And when it is laid to be done by putting in fear, this does not imply any great degree of terror or affright in the party robbed: it is enough that so much force or threatening, by word or gesture, be used, as might create an apprehension of danger, or induce a man to part with his property without or against his consent. Thus, if a man be knocked down without previous warning, and stripped of his property while senseless, though strictly he cannot be said to be *put in fear*, yet this is undoubtedly a robbery. Or, if a person with a sword drawn begs an alms, and I give it him through mistrust and apprehension of violence, this is a felonious robbery. So if, under a pretence of sale, a man forcibly extorts money from another, neither shall this subterfuge avail him.—But it is doubted, whether the forcing a higler, or other chapman, to sell his wares, and giving him the full value of them, amounts to so heinous a crime as robbery.

This species of larceny is debarred of the benefit of clergy by statute 23 Hen. VIII. c. 1. and other subsequent statutes; not indeed in general, but only when committed in a dwelling-house, or in or near the king's highway. A robbery, therefore, in a distant field, or footpath, was not punished with death; but was open to the benefit of clergy, till the statute 3 and 4 W. and M. c. 9. which takes away clergy from both principals and accessories before the fact, in robbery, wheresoever committed. See Law, N° clxxxvi. 20.

ROBERT Bruce, king of Scotland, in 1306; a renowned general, and the deliverer of his country from a state of vassalage to the English. See Scotland.

Robert, king of France, surnamed the Wise and the Pious, came to the crown in 996, after the death of Hugh Capet his father. He was crowned at Orleans, the place of his nativity, and afterwards at Rheims, after the imprisonment of Charles of Lorraine. He married Bertha his cousin, daughter of Conrad king of Burgundy; but the marriage was declared null by Gregory V.; and the king, if we can give credit to Cardinal Peter Damien, was excommunicated. This anathema made such a noise in France, that all the king's courtesans, and even his very domestics, went away from him. Only two continued with him; who were so deeply impressed with a sense of horror at whatever the king touched, that they purified it with fire: this scruple they carried so far, as to the very plates on which he was served with his meat, and the vessels out of which he drank. The same cardinal reports, that as a punishment for his pretended incest, the queen was delivered of a monster, which had the head and neck of a duck. He adds, that Robert was so struck with astonishment at this species of prodigy, that he lived apart from the queen. He contracted a second marriage with Constance, daughter of William count of Arles and Provence; but the arrogant disposition of this princess would have totally overturned the kingdom, and thrown it into confusion, had not the wisdom of the king prevented her from intermeddling with the affairs of the state. He carefully concealed from her whatever acts of liberality he showed to any of his domestics. "Take care (said he to them) that the queen don't perceive it."

it." Henry duke of Burgundy, brother of Hugh Capet, dying in 1002, without lawful issue, left his dukedom to his nephew the king of France. Robert invested his second son Henry with this dukedom, who afterwards coming to the crown, resigned it in favour of Robert his cadet. This duke Robert was chief of the first royal branch of the dukes of Burgundy, who flourished till 1361. This dukedom was then re-united to the crown by King John, who gave it to his fourth son Philip the Bold, chief of the second house of Burgundy, which was terminated in the person of Charles the Rash who was slain in 1477. King Robert was so much esteemed for his wisdom and prudence, that he was offered the empire and kingdom of Italy, which, however, he declined to accept. Hugh, called the *Great*, whom he had had by Constance, being dead, he caused his second son Henry I. to be crowned at Rheims. He died at Melun, July 20. 1031, at the age of 60. Robert was, according to the knowledge of the times, a wise prince. Hegland, friar of Fleury, relates, in his life of him, that, to prevent his subjects from falling into the crime of perjury, and incurring the penalties which followed thereon, he made them swear upon a shrine from which the relics had been previously removed, as if intention did not constitute perjury! and long after similar reasoning was adopted. Robert built a great number of churches, and procured a restitution to the clergy of the tithes and wealth which the laylords had made themselves masters of. The depredations were such, that the laity possessed the ecclesiastical treasures by hereditary titles; they divided them among their children; they even gave benefices as a dowry with their daughters, or left them to their sons as lawful inheritance. Although Robert was pious, and although he respected the clergy, yet it was evident, that he opposed the bishops with a firmness and resolution, of which, for many ages, they had no examples. Lutheric archbishop of Sens had introduced into his diocese the custom of proving by the eucharist persons accused as guilty of any crime. The king wrote to him in the following strong terms: —"I swear (says he) by the faith I owe to God, that if you do not put a stop to the gross abuse complained of, you shall be deprived of your priesthood." The prelate was forced to comply. He punished, in 1022, the Manichéens, canons of Orleans, by burning them at the stake. There are, however, recorded of him some less severe actions, which it is right to mention. A dangerous conspiracy against his person and government having been discovered, and the authors taken into custody, he seized the moment when their judges had met to sentence them to death, to cause an elegant repast to be served up to them. Next day they were admitted to the eucharist. Then Robert told them, that he gave them their pardon, "because none of those can die whom Jesus Christ came to receive at his table." One day when he was at prayers in the chapel, he perceived a thief, who had cut off the half of the fringe of his mantle, proceeding to take the remainder; "Friend (says he with a pleasant countenance), be content with what you have already taken, the rest will very well serve some other." Robert cultivated, and was a patronizer of the sciences. There are several hymns wrote by him, which still continue to be sung in the church. His reign was happy and tranquil. According to some authors, he instituted the order of the Star, commonly attributed to King John.

Robert of France, second son of Louis VIII. and brother to St Louis, who erected in his favour Artois into a royal peerage in the year 1237. It was during this time that the unlucky difference between Pope Gregory IX. and the emperor Frederic II. took place. Gregory offered to St Louis the empire for Robert; but the French noblesse, having met to deliberate on this proposal, were of opinion that he ought to reject it. He gave the pope for answer: "That Count Robert esteemed himself sufficiently honoured by being the brother of a king, who surpassed in dignity, in strength, in wealth, and in birth, all other monarchs in the world." Robert accompanied St Louis into Egypt, and fought with more bravery than prudence at the battle of Massoure, on the 9th of February 1250. In his pursuit of the cowards through a certain small village, he was killed by stones, sticks, and other things which they threw at him from the windows. He was an intrepid prince, but too passionate, dogmatical, and quarrelsome.

Robert II. *Count of Artois*, son of the preceding, surnamed the Good and the Noble, was at the expedition into Africa in 1270. He drove the rebels from Navarre in 1276. He brought a very powerful assistance to Charles I. king of Naples, of which kingdom he was regent during the captivity of Charles II. He defeated the Arragonians in Sicily in 1289, the English near Bayonne in 1296, and the Flemish at Furnes in 1298. But having in 1302 imprudently attempted to force these last, when encamped near Courtray, he received no less than 30 wounds; and in that expedition lost both his honour and his life. He was a brave, but passionate and fierce man, and good at nothing but pugilistic encounters. Mahaud his daughter inherited the dukedom of Artois, and gave herself in marriage to Otho duke of Burgundy, by whom she had two daughters, Jane wife of Philip the Long, and Blanche wife of Charles the Fair. In the mean time Philip, son of Robert II. had a son.

Robert III. who disputed the dukedom of Artois with Mahaud his aunt; but he lost his suit by two sentences given in against him in 1302 and 1318. He wished to revive the process in 1329, under Philip of Valois, by means of pretended new titles, which were found to be false. Robert was condemned the third time, and banished the kingdom in 1331. Having found an asylum with Edward III. king of England, he undertook to declare him king of France; which proved the cause of those long and cruel wars which distressed that kingdom. Robert was wounded at the siege of Vannes in 1342, and died of his wound in England. John, son to Robert, and count of Eu, was taken prisoner at the battle of Poitiers in 1356, and terminated his career in 1387. His son Philip II. high constable of France, carried on war in Africa and Hungary, and died in 1397, being a prisoner of the Turks. He had a son named *Charles*, who died in 1472, leaving no issue.

Robert of Anjou, surnamed the Wise, third son of Charles the Lame, succeeded his father in the kingdom of Naples in 1309, by the protection of the popes, and the will of the people, to the exclusion of Charobert son of his eldest brother. He aided the Roman pontiffs

against

against the emperor Henry VII. and, after the death of that prince, was nominated in 1313 vicar of the empire in Italy, in temporal matters, unless a new emperor was elected. This title was given him by Clement V. in virtue of a right which he pretended to have to govern the empire during an interregnum. Robert reigned with glory 33 years, eight months, and died on the 19th of January 1343, aged 64. "This prince (says M. De Montigni) had not those qualities which constitute heroes, but he had those which make good kings. He was religious, affable, generous, kind, wise, prudent, and a zealous promoter of justice." He was called the *Solomon* of his age. He loved the poor, and caused a ticket to be placed upon his palace, to give notice when he meant to distribute from the throne. He had no other passion but a very great love for learning. He used to say, that he would rather renounce his crown than his study. His court soon became the sanctuary of the sciences, which he encouraged equally by his example and his bounty. This prince was versed in theology, jurisprudence, philosophy, mathematics, and medicine. Boccace says, "that since the days of Solomon we have not seen so wise a prince upon the throne." For a great part of his life he had no taste for poetry; he even despised it, as, in his opinion, unworthy of a man of learning. A conversation which he had with Petrarch, however, undeceived him; he retained this poet at his court, and attempted himself to write some poems, which are still extant. He was forced to engage a little in war, for which he possessed no great talents; alluding to which, may be seen on his tomb a wolf and a lamb drinking out of the same vessel. Philip of Valois refrained from giving battle in 1339, by the repeated advice which this prince gave him, who was a great friend to France, both from inclination and interest. He detested quarrels among Christian princes, and had studied the science of astrology, not so much to know the course of the stars, as to learn by this chimerical science the hidden things of futurity. He believed that he read in the grand book of heaven a very great misfortune which would befal France if Philip hazarded a battle against the English.

Robert the First, called the Magnificent, duke of Normandy, second son of Richard II. succeeded in 1028 his brother Richard III. whom it is reported he poisoned. He had early in his reign to suppress frequent rebellions of several of the great vassals. He re-established in his estates Baudouin IV. count of Flanders, who had been unjustly stript of his possessions by his own son. He forced Canute king of Denmark, who was also king of England, to divide his possessions with his cousins Alfred and Edward. In the year 1035, he undertook barefooted a journey to the Holy Land; on his return from which he died, being poisoned at Nice in Bithynia, leaving as his successor William his natural son, afterwards king of England, whom he had caused before his departure to be publicly acknowledged in an assembly of the states of Normandy.

Robert, or *Rupert*, surnamed the Short, and the Mild, elector Palatine, son of Robert the Niggardly, was born in 1352, and elected emperor of Germany in 1400, after the deposition of the cruel Wenceslas. In order to gain the affection of the Germans, he wished to restore the Milanese to the empire, which Wenceslas had taken from it; but his attempts in this respect were unsuccessful. His attachment to the anti-pope Gregory XII. entirely alienated the affections of the German princes. To such a degree were they incensed against him, that they entered into a conspiracy to cut him off; but his death, which happened on the 18th of May 1410, being then 58 years old, put a stop to their machinations. Robert began to settle the sovereignty of the German princes. The emperors had formerly retained in their own hands the power of life and death, within the territories of a great many of the nobles; but he yielded them this right by his letters patent.—The chief fault imputed to this prince was an excess of lenity. But, if we consider the plots which he had to detect, the conspiracies which he had to frustrate, the secret and powerful enemies he had to deal with; if we inquire also into the commotions which the wicked administration of Wenceslas had excited, the irruptions and devastations of plunderers and highway robbers, which the nobles countenanced, and the distressed situation in which he found Germany, we must without hesitation conclude, that his lenity indicated his prudence, in restoring by slow degrees the empire to its original tranquillity. Robert had his virtues; he loved his subjects, and governed them with wisdom. Possessed of much political knowledge for the age in which he lived, he wanted nothing but talents for war to make him an accomplished prince. He was twice married. The name and rank of his first wife is unknown; he had by her a son, who died before him. His second wife was Elizabeth, daughter of Frederic burgrave of Nuremberg, by whom he had five sons and three daughters. The three daughters were, Margaret married to Charles duke of Lorrain; Agnes to Adolphus duke of Cleves; Elizabeth to Frederic duke of Austria. His sons were, Louis the first of the electoral branch, which became extinct in 1559; John father of Christopher king of Denmark; Frederick who died without issue; Otho count of Sintsheim; lastly Stephen, from whom descended the elector, and the other counts palatine of the Rhine, who are extant at this day.

Robert of Bavaria, prince palatine of the Rhine, and duke of Cumberland, the son of Frederic, elector palatine, by Elizabeth, daughter of James I. king of England, distinguished himself by his valour as a general and admiral; first in the Dutch, and then in the English service. He was unsuccessful in the cause of his uncle Charles I. against the parliament forces; but under Charles II. he defeated the Dutch fleet, and was made lord high admiral of England in 1673. This prince was a lover of the sciences, and particularly skilful in chemistry. He died in 1682.

ROBERTSON, Dr William, one of the most celebrated historians of his age, was one of those great characters, whose private life, flowing in an even and unvaried stream, can afford no important information to the biographer, although his writings will be read to the latest posterity with undiminished pleasure. He was born at the manse of Borthwick in the year 1721. His father was, at the time of his death, one of the ministers of the Old Grey Friars church in Edinburgh, which the Doctor came afterwards to supply. In 1743 he was licensed preacher, and placed in the parish of Gladsmuir in 1744; whence, in 1758, he was translated to Lady Yester's parish in Edinburgh. In 1761, on the death of Principal Goldie, he was elected principal of the

the university of Edinburgh, and appointed one of the ministers of the Old Grey Friars church. About this period he received the degree of Doctor of Divinity, and was appointed historiographer to his majesty for Scotland, and one of his majesty's chaplains for that kingdom.

We find it not easy to ascertain at what period were first unfolded the great and singular talents which destined Dr Robertson to be one of the first writers that rescued this island from the reproach of not having any good historians. We are, however, assured, that before the publication of any of his literary performances, even from his first appearance in public life, his abilities had begun to attract the notice of observing men; and to his more intimate friends he discovered marks of such high-minded ambition, as, seconded by those abilities, could not have failed to carry him to the first honours of his profession, in whatever sphere he had been placed, and whatever opposition he might have had to combat.

The first theatre that offered for the display of his talents, was the General Assembly of the Church of Scotland. It is the annual meetings of this court that produce to view men who would otherwise remain in the deepest obscurity. There the humble pastor, whose lot has been cast in the remotest corner of the Highland wilds, feels himself, for a time, on a footing of equality with the first citizen in the kingdom: he can there dispute with him the prize of eloquence, the most flattering distinction to a liberal mind; a distinction which is naturally sought after with the greater eagerness in that assembly, as the simple establishment of the church of Scotland has rendered it the only pre-eminence to which the greatest part of its members can ever hope to attain.

From the moment Dr Robertson first appeared in this assembly, he became the object of universal attention and applause. His speeches were marked with the same manly and persuasive eloquence that distinguishes his historical compositions; and it was observed by all, that while his young rivals in oratory contented themselves with opening a cause, or delivering a studied harangue, he showed equal ability to start objections, to answer, or to reply; and that even his most unpremeditated effusions were not unadorned with those harmonious and seemingly measured periods, which have been so much admired in his works of labour and reflection. He soon came to be considered as the ablest supporter of the cause he chose to espouse, and was now the unrivalled leader of one of the great parties which have long divided the church of which he was a member.

When we reflect upon this circumstance, and consider how much mankind are the same in every society, we shall be the less surprised to find in the literary works of Dr Robertson, an acquaintance with the human heart, and a knowledge of the world, which we look for in vain in other historians. The man who has spent his life in the difficult task of conducting the deliberations of a popular assembly, in regulating the passions, the interests, the prejudices, of a numerous faction, has advantages over the pedant, or mere man of letters, which no ability, no study, no second-hand information, can ever compensate.

The first work which extended the Doctor's reputation beyond the walls of the general assembly, was a sermon preached at Edinburgh before the society for propagating Christian knowledge, and afterwards published; the subject of which was, 'The state of the world at the appearance of Jesus Christ.' The ingenuity with which a number of detached circumstances are there collected, and shown to tend to one single point, may perhaps rival the art which is so much admired in the bishop of Meaux's celebrated Universal History.

This sermon did great honour to the author; and it is probably to the reputation he gained by it, that we ought to attribute the unanimity with which he was called to be one of the ministers of Edinburgh—an event which happened not long after, viz. in the year 1758. In 1759, he published, in two volumes quarto, 'The History of Scotland, during the reigns of Queen Mary and of King James VI. till his accession to the Crown of England, with a Review of the Scots History previous to that period.' This work in its structure is one of the most complete of all modern histories. It is not a dry jejune narrative of events, destitute of ornament; nor is it a mere frothy relation, all glow and colouring. The historian discovers a sufficient store of imagination to engage the reader's attention, with a due proportion of judgment to check the exuberance of fancy. The arrangement of his work is admirable, and his descriptions are animated. His style is copious, nervous, and correct. He has displayed consummate skill in rendering such passages of our history as are familiar to our recollection agreeable and entertaining. He has embellished old materials with all the elegance of modern dress. He has very judiciously avoided too circumstantial a detail of trite facts. His narratives are succinct and spirited; his reflections copious, frequent, and generally pertinent. His sentiments respecting the guilt of Mary have indeed been warmly controverted by Messrs Tytler, Stuart, and Whitaker; and, till the publication of Mr Laing's Dissertation on the same subject, (see MARY, life of) the general opinion seemed to be, that their victory was complete. That victory, however, on the part of Whitaker, is sullied by the acrimony with which he writes. Dr Robertson was no rancorous or malignant enemy of the unfortunate queen. While relating, what he doubtless believed, he makes every possible allowance for Mary from the circumstances in which she was placed; and his history will be read with pleasure by candid men of all parties as long as the language in which it is composed shall continue to be understood.

In 1769, Dr Robertson published, in three volumes quarto, The History of the Reign of the Emperor Charles V. with a View of the Progress of Society in Europe, from the Subversion of the Roman Empire to the beginning of the 16th century.—The vast and general importance of the period which this history comprises, together with the reputation which our historian had deservedly acquired, co-operated to raise such high expectations in the public, that no work perhaps was ever more impatiently wished for, or perused with greater avidity. The first volume (which is a preliminary one, containing the progress of Society in Europe, as mentioned in the title) is a very valuable part of the work; for it serves not only as a key to the pages that follow, but may be considered as a general introduction to the study of history in that period in which

which the several powers of Europe were formed into one great political system, in which each took a station, wherein it has since remained (till within a very few years at least) with less alterations than could have been expected, after the shocks occasioned by so many internal revolutions, and so many foreign wars. Of the history itself, it may be sufficient to observe, that it is justly ranked among the capital pieces of historical excellence. There is an elegance of expression, a depth of discernment, and a correctness of judgment, which do honour to the historian. The characters are inimitably penned. They are not contrasted by a studied antithesis, but by an opposition which results from a very acute and penetrating insight into the real merits of each character, fairly deduced from the several circumstances of his conduct exemplified in the history. For this work the author received L.4500 sterling.

In 1779, Dr Robertson published the History of America, in two volumes quarto. This celebrated work may be considered with great propriety as a sequel to the preceding history. From the close of the 15th century we date the most splendid era in the annals of modern times. Discoveries were then made, the influence of which descended to posterity; and events happened that gave a new direction to the spirit of nations.

To the inhabitants of Europe, America was in every respect a new world. There the face of the earth changed its appearance. The plants and trees and animals were strange; and nature seemed no longer the same. A continent opened that appeared to have recently come from the hands of the Creator, and which showed lakes, rivers, and mountains, on a grander scale, and the vegetable kingdom in greater magnificence, than in the other quarters of the globe; but the animal tribes in a state of degradation, few in number, degenerated in kind, imperfect and unfinished. The human species in the earliest stage of its progress, vast and numerous nations in the rudest form of the savage state which philosophers have contemplated, and two great empires in the lowest degree of civilization which any records have transmitted to our review, presented to the philosophic eye at this period the most fruitful subject of speculation that was to be found in the annals of history.

The discovery of the New World, moreover, was not only a curious spectacle to the philosopher, but, by the change which it effected, an interesting spectacle to the human race. When Columbus set sail for unknown lands, he little expected that he was to make a revolution in the system of human affairs, and to form the destiny of Europe for ages to come. The importance and celebrity therefore of the subject had attracted the attention of philosophers and historians. Views and sketches of the new world had been given by able writers, and splendid portions of the American story had been adorned with all the beauties of eloquence. But, prior to the appearance of Dr Robertson's history, no author had bestowed the mature and profound investigation which such a subject required, or had finished, upon a regular plan, that complete narration and perfect whole which it is the province of the historian to transmit to posterity. And as the subject upon which our author entered was grand, his execution was masterly. The character of his former works was immediately discerned in it. They had been read with uncommon admiration. When the History of Scotland was first published, and the author altogether unknown, Lord Chesterfield pronounced it to be equal in eloquence and beauty to the productions of Livy, the purest and most classical of all the Roman historians. His literary reputation was not confined to his own country: the testimony of Europe was soon added to the voice of Britain. It may be mentioned, indeed, as the characteristic quality of our author's manner, that he possessed in no common degree that supported elevation which is suitable to compositions of the higher class; and, in his History of America, he displayed that happy union of strength and grace which becomes the majesty of the historic muse. In the fourth book of his first volume, which contains a description of America when first discovered, and a philosophical inquiry into the manners and policy of its ancient inhabitants, he displays, moreover, so much patient investigation and sound philosophy, abounds in such beautiful or interesting description, and exhibits such variety and copiousness of elegant writing, that future times will probably refer to it as that part of his works which gives the best idea of his genius, and is the most finished of all his productions.

In 1787 appeared a translation of the abbé Clavigero's History of Mexico; in which work the author threw out various reflections, tending in several instances to impeach the credit of Dr Robertson's History of America. This attack induced our learned historian to revise his work, and to inquire into the truth of the charges brought against it by the historian of New Spain: and this he appears to have done with a becoming attention to the importance of the facts that are controverted, and to the common interests of truth. The result he published in 1788, under the title of Additions and Corrections to the former Editions of Dr Robertson's History of America.—In many of the disputed passages, he fully answered the abbé Clavigero and vindicated himself: in others he candidly submitted to correction, and thus gave additional value to his own work.

The literary labours of Dr Robertson appear to have been terminated in 1791 by the publication of An Historical Disquisition concerning the Knowledge which the Ancients had of India, and the progress of Trade with that country prior to the Discovery of the Passage to it by the Cape of Good Hope; with an Appendix, containing Observations on the Civil Polity, the Laws, and Judicial Proceedings, the Arts, the Sciences, and Religious Institutions of the Indians.—The perusal of Major Rennel's Memoir, for illustrating his map of Hindostan, suggested to Dr Robertson the design of examining more fully than he had done, in his History of America, into the knowledge which the ancients had of India, and of considering what is certain, what is obscure, and what is fabulous, in their accounts of that remote country. Of his various performances, this is not that of which the design is the most extensive, or the execution the most elaborate; but in this historical disquisition we perceive the same patient assiduity in collecting his materials, the same discernment in arranging them, the same perspicuity of narrative, and the same power of illustration, which so eminently distinguish his other writings, and which have long rendered them the delight

delight of the British reader at home and an honour to British literature abroad.

A truly useful life Dr Robertson closed on the 11th of June 1793, at Grange-House, near Edinburgh, after a lingering illness, which he endured with exemplary fortitude and resignation. It may be justly observed of him, that no man lived more respected, or died more sincerely lamented. Indefatigable in his literary researches, and possessing from nature a sound and vigorous understanding, he acquired a store of useful knowledge, which afforded ample scope for the exertion of his extraordinary abilities, and raised him to the most distinguished eminence in the republic of letters. As a minister of the gospel, he was a faithful pastor, and justly merited the esteem and veneration of his flock. In a word, he may be pronounced to be one of the most perfect characters of the age; and his name will be a lasting honour to the island that gave him birth. His conversation was cheerful, entertaining and instructive; his manners affable, pleasing, and endearing.

ROBERVALLIAN LINES, a name given to certain lines used for the transformation of figures, so called from Roberval the inventor of them.

These lines are the boundaries of lines infinitely extended in length, yet equal to other spaces which are terminated on all sides.

It is observed by the abbot Gallois, that the method of transforming figures which is explained at the end of Roberval's treatise of Indivisibles, was the same with that afterwards published by James Gregory, in his *Geometria Universalis*, and also by Dr Barrow in his *Lectiones Geometricæ*; and that it appears from Torricelli's letter, that Roberval was the inventor of this method of transforming figures, by means of certain lines, called by Torricelli, for that reason, *Robervallian lines*.

The same author adds, that J. Gregory probably first learned this method at Padua in the year 1668; for the method was known in Italy in 1646, although the book was not published till 1692.

David Gregory endeavoured to refute this account, in vindication of his uncle James, whose answer appeared in the Phil. Trans. for 1694, and the abbot rejoined in the Memoirs of the French Academy for 1703; so that it remains in a state of uncertainty to which of the two we are to ascribe the invention.

ROBIGUS AND ROBIGO, a Roman god and goddess, who joined in the preservation of corn from *blight*. Their festival was kept on the 25th of April.

ROBIN HOOD. See HOOD.

ROBIN-Redbreast. See MOTACILLA, ORNITHOLOGY *Index*.

ROBINIA, FALSE ACACIA; a genus of plants belonging to the diadelphia class; and in the natural method ranking under the 32d order, *Papilionaceæ*. See BOTANY *Index*. There are nine species included under this genus, and the most remarkable are the caragnana and ferox, the leaves of the former of which are conjugated, and composed of a number of small follicles, of an oval figure, and ranged by pairs on one common stock. The flowers are leguminous, and are clustered on a filament. Every flower consists of a small bell-shaped petal, cut into four segments at the edge, the upper part being rather the widest. The keel is small, open, and rounded. The wings are large, oval, and a little raised. Within are 10 stamina united at the base curved towards the top, and rounded at the summit. In the midst of a sheath, formed by the filaments of the stamina, the pistil is perceivable, consisting of an oval germen, terminated by a kind of button. This germen becomes afterwards an oblong flattish curved pod, containing four or five seeds, of a size and shape irregular and unequal; yet in both respects somewhat resembling a lentil.

This tree grows naturally in the severe climates of Northern Asia, in a sandy soil mixed with black light earth. It is particularly found on the banks of great rivers, as the Oby, Jenisei, &c. It is very rarely met with in the inhabited parts of the country, because cattle are very fond of its leaves, and hogs of its roots; and it is so hardy, that the severest winters do not affect it. Gmelin found it in the neighbourhood of Tobolsk, buried under 15 feet of snow and ice, yet had it not suffered the least damage. Its culture consists in being planted or sowed in a lightish sandy soil, which must on no account have been lately manured. It thrives best near a river, or on the edge of a brook or spring; but presently dies if planted in a marshy spot, where the water stagnates. If it is planted on a rich soil, well tilled, it will grow to the height of 20 feet, and in a very few years will be as big as a common birch tree.

In a very bad soil this tree degenerates, and becomes a mere shrub: the leaves grow hard, and their fine bright green colour is changed to a dull deep green. The Tungusian Tartars, and the inhabitants of the northern parts of Siberia, are very fond of the fruit of this tree, it being almost the only sort of pulse they eat. M. Strahlemberg, author of a well-esteemed description of Siberia, assures us that this fruit is tolerably pleasant food, and very nourishing. These pease are first infused in boiling water, to take off a certain acrid taste, and are afterwards dressed like common pease or Windsor beans; and being ground into meal, pretty good cakes are made of them. The leaves and tender shoots of this tree make excellent fodder for several sorts of cattle. The roots, being sweet and succulent, are very well adapted to fattening hogs; and the fruit is greedily eaten by all sorts of poultry. After several experiments somewhat similar to the methods used with anil and indigo, a fine blue colour was procured from its leaves. The smaller kind of this tree seems still better adapted to answer this purpose. The striking elegance of its foliage, joined to the pleasing yellow colour of its beautiful flowers, should, one would imagine, bring it into request for forming nosegays, or for speedily making an elegant hedge.

Besides the qualities above recited, it possesses the uncommon advantage of growing exceedingly quick, and of being easily transplanted. There are large plantations of it now in Sweden, Norway, Lapland, and Iceland. Linnæus assures us, that after the *Pinus fol. quinis*, erroneously called the *cedar tree of Siberia*, this tree, of all that are found to be in Siberia, is most worthy of cultivation.

The robinia ferox is a beautiful hardy shrub, and, on account of its robust strong prickles, might be introduced into this country as a hedge plant, with much propriety. It resists the severest cold of the climate of St Petersburgh, and perfects its seed in the imperial garden there. It rises to the height of six or eight feet; does not send out suckers from the root, nor

nor ramble so much as to be with difficulty kept within bounds. Its flowers are yellow, and the general colour of the plant a light pleasing green. A figure of it is given in the *Flora Rossica* by Dr Pallas, who found it in the southern districts, and sent the seeds to St Petersburgh, where it has prospered in a situation where few plants can be made to live.

ROBINS, Benjamin, a most ingenious mathematician, was born at Bath in 1707. His parents were Quakers of low condition, and consequently were unable to have him much instructed in human learning. But his own propensity to science having procured him a recommendation to Dr Pemberton at London, by his assistance, while he attained the sublimer parts of mathematical knowledge, he commenced teacher of the mathematics. But the business of teaching, which required confinement, not suiting his active disposition, he gradually declined it, and engaged in business that required more exercise. Hence he tried many laborious experiments in gunnery, from the persuasion that the resistance of the air has a much greater influence on swift projectiles than is generally imagined. Hence also he was led to consider the mechanic arts that depend on mathematical principles; as the construction of mills, the building of bridges, the draining of fens, the rendering of rivers navigable, and the making of harbours. Among other arts, fortification much engaged his attention; and he met with opportunities of perfecting himself by viewing the principal strong places of Flanders, in some tours he made abroad with persons of distinction.

Upon his return from one of these excursions, he found the learned amused with Dr Berkeley's work, intitled The Analyst, in which an attempt was made to explode the method of fluxions. Mr Robins was therefore advised to clear up this affair by giving a distinct account of Sir Isaac Newton's doctrines, in such a manner as to obviate all the objections that had been made without naming them. Accordingly, he published, in 1735, A Discourse concerning the Nature and Certainty of Sir Isaac Newton's Method of Fluxions: and some exceptions being made to his manner of defending Sir Isaac Newton, he afterwards wrote two or three additional discourses. In 1738, he defended the same great philosopher against an objection contained in a note at the end of a Latin piece, called *Matho, sive Cosmothoeria puerilis;* and the following year printed Remarks on M. Euler's Treatise of Motion, on Dr Smith's System of Optics, and on Dr Jurin's Discourse of distinct and indistinct Vision annexed to Dr Smith's work. In the meanwhile, Mr Robins did not solely confine himself to mathematical subjects: for in 1739 he published three pamphlets on political affairs, without his name; when two of them, relating to the convention and negociations with Spain, were so universally esteemed, as to occasion his being employed in a very honourable post; for on a committee being appointed to examine into the past conduct of Sir Robert Walpole, he was chosen their secretary.

In 1742, Mr Robins published a small treatise, intitled *New Principles of Gunnery,* containing the result of many experiments; when a Discourse being published in the Philosophical Transactions, in order to invalidate some of his opinions, he thought proper, in an account he gave of his book in the same Transactions, to take notice of those experiments; in consequence of which, several of his Dissertations on the Resistance of the Air were read, and the experiments exhibited before the Royal Society, for which he was presented by that honourable body with a gold medal.

In 1748, appeared Lord Anson's Voyage round the World, which, though Mr Walter's name is in the title, has been generally thought to be the work of Mr Robins. Mr Walter, chaplain on board the Centurion, had brought it down to his departure from Macao for England, when he proposed to print the work by subscription. It was, however, it is said, thought proper, that an able judge should review and correct it, and Mr Robins was appointed; when, upon examination, it was resolved that the whole should be written by Mr Robins, and that what Mr Walter had done should only serve as materials. Hence the introduction entire, and many dissertations in the body of the work, it is said, were composed by him, without receiving the least assistance from Mr Walter's manuscript, which chiefly related to the wind and the weather, the currents, courses, bearings, distances, the qualities of the ground on which they anchored, and such particulars as generally fill up a sailor's account. No production of this kind ever met with a more favourable reception; four large impressions were sold within a twelvemonth; and it has been translated into most of the languages of Europe. The fifth edition, printed at London in 1749, was revised and corrected by Mr Robins himself. It appears, however, from the corrigenda and addenda to the 1st volume of the Biographia Britannica, printed in the beginning of the fourth volume of that work, that Mr Robins was only consulted with respect to the disposition of the drawings, and that he had left England before the book was printed. Whether this be the fact, as it is asserted to be by the widow of Mr Walter, it is not for us to determine.

It is certain, however, that Mr Robins acquired the fame, and he was soon after desired to compose an apology for the unfortunate affair at Prestonpans in Scotland, which was prefixed as a preface to The Report of the Proceedings of the Board of General Officers on their Examination into the conduct of Lieutenant-General Sir John Cope; and this preface was esteemed a masterpiece in its kind. He afterwards, through the interest of Lord Anson, contributed to the improvements made in the Royal Observatory at Greenwich. Having thus established his reputation, he was offered the choice of two considerable employments; either to go to Paris as one of the commissaries for adjusting the limits of Acadia, or to be engineer-general to the East India Company. He chose the latter, and arrived in the East Indies in 1750; but the climate not agreeing with his constitution, he died there the year following.

ROBINSON, the most Rev. Sir Richard, archbishop of Armagh and Lord Rokeby, was immediately descended from the Robinsons of Rokeby in the north riding of the county of York, and was born in 1709. He was educated at Westminster school, from whence he was elected to Christ-Church, Oxford, in 1726. After continuing his studies there the usual time, Doctor Blackburne, archbishop of York, appointed him his chaplain, and collated him first to the rectory of Elton, in the east riding of Yorkshire, and next to the prebend of Grindal, in the cathedral of York. In 1751, he

he attended the duke of Dorset, lord-lieutenant of Ireland, to that kingdom, as his first chaplain, and the same year was promoted to the bishopric of Killala. A family connection with the earl of Holdernesse, who was secretary of state that year, with the earl of Sandwich and other noblemen related to him, opened the fairest prospects of attaining to the first dignity in the Irish church. Accordingly in 1759 he was translated to the united sees of Leighlin and Ferns, and in 1761 to Kildare. The duke of Northumberland being appointed to the lieutenancy of Ireland in 1765, he was advanced to the primacy of Armagh, made lord-almoner, and vice-chancellor of the university of Dublin. When Lord Harcourt was lord-lieutenant of Ireland in 1777, the king was pleased by privy-seal at St James's, February 6th, and by patent at Dublin the 26th of the same month, to create him Baron Rokeby of Armagh, with remainder to Matthew Robinson of West Layton, Esq.; and in 1783 he was appointed prelate to the most illustrious order of St Patrick. On the death of the duke of Rutland lord-lieutenant of Ireland in 1787, he was nominated one of the lords-justices of that kingdom. Sir William Robinson, his brother, dying in 1785, the primate succeeded to the title of baronet, and is the survivor in the direct male line of the Robinsons of Rokeby, being the 8th in descent from William of Kendal. His grace died at Clifton near Bristol in the end of October 1794.

No primate ever sat in the see of Armagh who watched more carefully over the interest of the church of Ireland, as the statute-book evinces. The act of the 11th and 12th of his present majesty, which secures to bishops and ecclesiastical persons repayment by their successors of expenditures in purchasing glebes and houses, or building new houses, originated from this excellent man, and must ever endear his name to the clergy. The other acts for repairing churches, and facilitating the recovery of ecclesiastical dues, were among the many happy exertions of the primate.

But it was at Armagh, the ancient seat of the primacy, that he displayed a princely munificence. A very elegant palace, 90 feet by 60, and 40 high, adorns that town; it is light and pleasing, without the addition of wings or lesser parts; which too frequently wanting a sufficient uniformity with the body of the edifice, are unconnected with it in effect, and divide the attention. Large and ample offices are conveniently placed behind a plantation at a small distance. Around the palace is a large lawn, which spreads on every side over the hills, skirted by young plantations, in one of which is a terrace, which commands a most beautiful view of cultivated hill and dale; this view from the palace is much improved by the barracks, the school, and a new church at a distance; all which are so placed as to be exceedingly ornamental to the whole country.

The barracks were erected under the primate's direction, and form a large and handsome edifice. The school is a building of considerable extent, and admirably adapted for the purpose; a more beautiful or better contrived one is nowhere to be seen; there are apartments for a master, a school-room 50 feet by 28, a large dining room and spacious airy dormitories, with every other necessary, and a spacious play ground walled in; the whole forming a handsome front: and attention being paid to the residence of the master (the salary is L.400 a year), the school flourishes, and must prove one of the greatest advantages to the country. This edifice was built entirely at the primate's expence. The church is erected of white stone, and having a tall spire, makes a very agreeable object, in a country where churches and spires do not abound. The primate built three other churches, and made considerable reparations to the cathedral; he was also the means of erecting a public infirmary, contributing amply to it himself: he likewise constructed a public library at his own cost, endowed it, and gave it a large collection of books; the room is 45 feet by 25, and 20 high, with a gallery and apartments for the librarian. The town he ornamented with a market-house and shambles, and was the direct means, by giving leases upon that condition, of almost new-building the whole place. He found it a nest of mud cabins, and he left it a well-built city of stone and slate. These are noble and spirited works, in which the primate expended not less than L.20,000. Had this sum been laid out in improving a paternal estate, even then they would be deserving great praise; but it is not for his posterity but the public good that his grace was so munificent. A medal was struck by the ingenious William Mossop of Dublin, which has on one side the head of the primate, inscribed "Richard Robinson, Baron Rokeby, Lord Primate of all Ireland." And on the reverse, the south front of the observatory at Armagh, erected by his grace, with this admirable motto, "The Heavens declare the glory of God." MDCCLXXXIX.

Robinson, *Robert*, a dissenting minister of considerable note, was born on the 8th of October 1735 at Swaffham in Norfolk. His father died when he was young; and his maternal grandfather Robert Wilkin, of Milden-Hall, Suffolk, gent. who had ever been dissatisfied with his daughter's marriage, deprived him of his maternal inheritance, cutting him off with half-a-guinea. His uncle, however, who was a substantial farmer, in some measure supplied their loss. He took Mr Robinson home, and placed him under the Rev. Joseph Brett, at Scarning school in Norfolk, with a view to the ministry of the church of England; where he had for one of his school-fellows the lord chancellor Thurlow. When about the age of 15 or 16, he imbibed the notions of George Whitfield; on which account he was discarded by his uncle, and again exposed to poverty and want. He first directed his thoughts towards the ministry in the year 1754, and commenced preacher in the following year at the age of 20; preaching his first sermon to a congregation of poor people at Milden-hall. He continued for a year or two as one of Mr Whitfield's preachers, and during that period he married. In the year 1758, however, he determined to separate from the Methodists; after which he settled at Norwich with a small congregation formed chiefly of his methodistic friends, being at that time an Independent. In the year 1759 he was invited to Cambridge, and for two years preached on trial to a congregation consisting of no more than 34 people, and so poor that they could only raise L.3, 6s. a quarter for his subsistence. In June 1761 he settled as their pastor, and was ordained in the usual manner; at which time we are told he exercised the office of a barber. In 1774, his congregation had so much increased as to consist of 1000 souls, including children and servants.

In Cambridge Mr Robinson's talents soon attracted

notice, and he quickly set up a Sunday evening lecture, which was well attended. His preaching was altogether without notes; a method in which he was peculiarly happy: not by trusting to his memory entirely, nor by working himself up to a degree of warmth and passion, to which the preachers among whom he first appeared commonly owe their ready utterance; but by thoroughly studying and making himself perfectly master of his subject, and a certain faculty of expression which is never at a loss for suitable and proper words. In short, his manner was admirably adapted to enlighten the understanding, and to affect and reform the heart. He had such a plainness of speech, such an easy and apparent method in dividing a discourse, and such a familiar way of reasoning, as discovered an heart filled with the tenderest concern for the meanest of his hearers; and yet there was a decency, propriety, and justness, that the most judicious could not but approve. Several gentlemen of the university, eminent for character and abilities, we are told, were his constant hearers.

The circumstances which lost him his uncle's patronage paved the way for the future events of his life. The incident which made him discard the common sentiments on the subject of baptism, at once marked the turn of his mind, and shows what apparently slight causes frequently determine the lot and usefulness of our lives. He was invited to the baptism of a child; the minister who was to perform the service keeping the company in long expectation of his appearance, some one suggested, that supposing the child were not baptized at all, he saw not how it could affect his happiness. Though the conversation was not pursued, the hint struck Mr Robinson's mind; and he immediately determined to read the New Testament with this particular view, to examine what it said concerning the baptism of infants. He accordingly began with the Gospel of Matthew; and, in succession, perused the historical and epistolary books; in expectation that he should find in every following part what he had not met with in the preceding parts of the sacred volume; namely, passages recommending and urging this rite. But observing, on the whole, a total silence about it, he thought it his duty to relinquish the practice, as without foundation in the rule of our faith; which appeared to him to speak only of the baptism of believers.

This change of his sentiments was more unfavourable than the former alterations in his religious judgment to his worldly views; and having married very early in life from pure affection, he was involved in great difficulties for near 12 years after his settlement in Cambridge; as, in that course of time, his family became numerous, and the support of an aged mother, as well as of a wife and ten children, depended upon him. But unexpected supplies, from quarters of which he was ignorant, frequently relieved his necessities, and confirmed his trust in Providence: yet the situation of his family must, it is easy to conceive, have much affected his mind. For he appears to have possessed great tenderness and sensibility, and to have regarded with peculiar endearment his domestic connections.

It may be reckoned a circumstance worthy of mention, that the sphere of Mr Robinson's ministry was the same in which his great grandfather Mr Shelly, of Jesus College, and vicar of All-Saints, had, with others, diffused the principles of the Puritans, about the beginning of the 17th century. The reputation of the Dissenters in the university and neighbourhood had for almost a century been sinking into contempt, when Mr Robinson settled with the baptist church at Stone-Yard. His abilities and assiduity, however, raised their reputation. The place in which his people assembled, which was at first a barn, afterwards a stable and granary, and then a meeting-house, but still a damp, dark, and ruinous place, soon became too small for the audience; and several of the new auditors being men of fortune, they purchased the site, and erected at their own expence a new house in the year 1764.

His labours as a preacher were not limited to the town of Cambridge; but soon after his coming there, he set up several lectures in the adjacent villages. His lectures were either annual or occasional, or stated on fixed days. The usual time was half an hour after six in the evening; and sometimes at five in the morning; and now and then in the summer at two in the afternoon, for the sake of those who came from a distance.

He died on the 9th of June 1790, at the house of William Russel, Esq. of Showell Green near Birmingham. He had laboured under an alarming disorder for some time before; but on the Sunday preceding his death he preached a charity sermon. On Monday he was seized with a fit; on Tuesday he recovered and went to bed tolerably well, but was found dead next morning.

The abilities of Mr Robinson were very considerable, as appears from his numerous works; and he possessed the quality of expressing his thoughts in an easy and a forcible manner. But he appears to have been of an unsteady temper, and in our opinion, acquires but little credit either from the frequency with which he changed his religious creed (for we have reason to believe he died a Socinian), or from the foolish and undeserved acrimony with which he treated the church of England. His Plan of Lectures on the Principles of Nonconformity, for the Instruction of Catechumens, is a piece of the most unjust and illiberal abuse that we have ever seen, and would have disgraced the most high-flying Puritan of the last century.

Mr Robinson's largest work, the History of Baptism and of the Baptists, was published since his death, and is written in the same style and with the same confidence as his other works. Yet, as we have heard it remarked by a learned and liberal professor of theology in the church which he opposed, it is not a little remarkable that there is in it no argument or fact against infant baptism which was not answered by Dr Wall nearly 100 years ago, of whose arguments Mr Robinson however takes no notice.

ROBORANTS, in *Pharmacy*, medicines which strengthen the parts, and give new vigour to the constitution.

ROCHEFORT, a handsome and considerable town of France, in the department of Lower Charente. It was constructed by Louis XIV. and is built in the midst of marshes expressly drained for that purpose; and time evinced the utility of the project, for as a port it soon became as necessary and important to the crown of France as Brest or Toulon. It has a department of the marine, and has large magazines of naval stores. There is also one of the finest halls of arms in the kingdom, and a great many workmen employed in making them; there

there are also forges for anchors, and work-houses for ship-carpenters, who are employed in every thing that relates to the fitting out of ships that come within the compass of their province. They likewise cast great guns here; and have artists, whose employment is sculpture and painting. There are also stocks for building men of war, rope-walks, magazines of provisions and powder, a manufactory of sail-cloth, an hospital for sailors, and proper places to clean the ships. Add to these, the houses of the intendant, the square of the capuchins, and the superb structure which contains lodgings for 300 marine guards, where they are taught the business and exercises belonging to seamen and officers who go on board the men of war.

Besides the usual number of workmen which were employed at Rochefort during the monarchy, which amounted to about 900, there were about 600 galley slaves, occupied in the most painful and laborious branches of service. The town is situated on the river Charente, about five leagues from its mouth, and was fortified by Louis XIV. at the time he constructed it; but its situation is at so considerable a distance from the sea, as to render it sufficiently secure from any attack, and they have therefore closed up the battlements, and neglected the fortifications. In 1800 it contained about 15,000 inhabitants. The town is laid out with great beauty and elegance. The streets are all very broad and straight, extending through the whole place from side to side; but the buildings do not correspond with them in this respect, as they are mostly low and irregular. W. Long. 0. 54. N. Lat. 46. 3.

ROCHEFOUCAULT, Francis Earl of, descended of an illustrious family, next in dignity to that of the sovereigns, was chamberlain to King Charles VIII. and Louis XII. His character at court was admired as obliging, generous, upright, and sincere. In 1494 he stood godfather to Francis I. who, when he came to the throne, continued to pay great respect to that spiritual relation. He made him his chamberlain in ordinary, and erected, in 1515, the barony of Rochefoucault into an earldom; and, in his writ of erection, observes, that he did this in memory of the great, honourable, highly useful, and commendable services which the said Francis had done to his predecessors, to the crown of France, and to himself. The earl of Rochefoucault died in 1517, leaving behind him an illustrious memory, and a character universally respected. Since his time all the eldest sons of that family have taken the name of Francis.

Rochefoucault, *Francis duke de la*, prince of Marsillac, governor of Poitou, was born in 1603.—He was the son of Francis, the first duke of Rochefoucault, and was distinguished equally by his courage and his wit. These shining qualities endeared him to all the nobility at court, who were ambitious of decorating themselves at once with the laurels of Mars and of Apollo. He wrote two excellent works; the one a book of Maxims, which M. de Voltaire says has contributed more than any thing else to form the taste of the French nation; and the other, Memoirs of the Regency of Queen Anne of Austria. It was partly at the instigation of the beautiful duchess de Longueville, to whom he had been long attached, that the duke de Rochefoucault engaged in the civil wars, in which he signalized himself particularly at the battle of St Antoine. Beholding one day a portrait of this lady, he wrote underneath it these two lines from the tragedy of Alcyonée:

" Pour mériter son cœur, pour plaire à ses beaux yeux,
" J'ai fait la guerre aux rois, je l'aurois fait aux dieux."

Which may be thus rendered in English:

" To gain her heart, and please her sparkling eyes,
" I've war'd with kings, and would have brav'd the skies."

It is reported, that after his rupture with Madame Longueville, he parodied the above verses thus:

" Pour ce cœur inconstant, qu'enfin je connois mieux,
" Je fais la guerre aux rois, j'en ai perdu les yeux."

After the civil wars were ended, he thought of nothing but enjoying the calm pleasures of friendship and literature. His house became the rendezvous of every person of genius in Paris and Versailles. Racine, Boileau, Savigne, and La Fayette, found in his conversation charms which they sought for in vain elsewhere. He was not, however, with all his elegance and genius, a member of the French Academy. The necessity of making a public speech on the day of his reception was the only cause that he did not claim admittance. This nobleman, with all the courage he had displayed upon various critical occasions, and with his superiority of birth and understanding over the common run of men, did not think himself capable of facing an audience to utter only four lines in public, without being out of countenance. He died at Paris in 1680, aged 68, leaving behind him a character which has been variously drawn by those who during his life were proud of his friendship. That he was well acquainted with human nature is certain; and his merit in that respect was fully admitted by Swift, who was himself not easily imposed upon by the artificial disguises of the hypocrite.

ROCHELLE, a celebrated city of France, in the department of Lower Charente, with a very commodious and safe harbour, which, though it does not admit vessels of any considerable burden, is yet well calculated for trade. "It may be divided (says Mr Wraxal) into three parts; the bason, which is the innermost of these, is only a quarter of a mile in circumference; and at the entrance are two very noble Gothic towers, called the Tour de St Nicholas, and the Tour de la Chaine. They are now in a state of decay, but were anciently designed to protect the town and harbour. Without these towers is the Avant Port, extending more than a league, and bounded by two points of land to the north and south. Beyond all is the road where the largest ships usually anchor, protected from the south-west winds by the islands of Re, Oleron, and Aix." The celebrated mound erected by Richlieu extends from side to side across the whole harbour, nearly an English mile in length, and when the sea retires is still visible. "I walked out upon it (says Mr Wraxal) above 300 feet. Its breadth is at this time more than 150 feet, and it widens continually towards the base. No effort of art or power can possibly impress the mind with so vast and sublime an idea of the genius of Richlieu, as does this bulwark against the sea. While I stood upon it, in the middle of the port, between the waves which rolled on either side, and contemplated its extent and strength, I was almost inclined to suppose this astonishing work to be

be superior to human power, and the production rather of a deity than of a mortal. A small opening of about 200 feet was left by Pompey Targon, the architect who constructed it, to give entrance to vessels, and shut up by chains fixed across it. A tower was likewise erected at each end, no remains of which are now to be seen. Neither the duke of Buckingham, nor the earl of Lindsey, who were successively sent from England to the aid of the besieged by Charles the First, dared to attack this formidable barrier: they retired, and left Rochelle to its fate. In all probability, a thousand years, aided by storms and all the fury of the sea, will make little or no impression on this mound, which is designed to endure as long as the fame of the cardinal, its author."

Before the revolution, Rochelle was a bishop's see, and contained a college of humanities, an academy, a school for medicine, anatomy, and botany, and a mint. It cannot lay claim to any remote antiquity, being merely a little collection of houses on the shore, inhabited by fishermen, when William IX. last count of Poictou, rendered himself master of it in 1139. From this prince it descended to his only daughter Eleanor, afterwards queen of Henry II. of England; and her charter incorporating the town is still preserved in the registers of the city. In the year 1540, Rochelle was the grand asylum of the Protestants; and the massacre at Paris was soon followed by the siege of Rochelle, which began in November 1572, and was raised in June 1573; but in 1628, after a most obstinate resistance, and a siege of 13 months, it surrendered to the mercy of Louis XIII. At the beginning of the first siege the number of inhabitants in the city amounted to 72,000; in the second they diminished to 28,000; and they were, when Mr Wraxal was there, between 17 and 18,000, of which scarce 2000 were Huguenots. The houses of this city are fine, and supported with piazzas, under which persons may walk in all weathers; and the streets in general are as straight as a line. There are several handsome churches, and other structures, besides a remarkable pump in the square of Dauphiny, which throws out the water through several pipes. There are no remains of the old fortifications, except on the side of the harbour, where there are bulwarks and strong towers to defend the entrance. The new fortifications are in the manner of Vauban. Before Canada was ceded to England, and New Orleans to Spain, the trade of Rochelle was very lucrative. It revived about the year 1773, and, beside that to the coast of Guinea and the East Indies, the inhabitants carried on a considerable trade in wines, brandy, salt, paper, linen cloth, and serge. It is seated on ths ocean, in W. Long. 1. 4. N. Lat. 46. 9.

ROCHESTER, a city of Kent, in England, is situated on the Medway, seven miles and a half north of Maidstone, and 30 from London. It appears to have been one of the Roman stations, from the bricks in the walls, as well as the Roman coins that have been found about it. It has three parish churches built with stone and flints, besides the cathedral, which is but a mean structure. This little city, which was made a bishop's see by King Ethelbert, anno 604, has met with many misfortunes. In 676, it was sacked by Eldred king of Mercia; in 839 and 885, besieged by the Danes, but rescued by King Alfred. About 100 years after, it was besieged by King Ethelred, and forced to pay L.100. Anno 999 it was taken and plundered by the Danes. Anno 1088 it was besieged and taken by William Rufus. In King John's time it was taken from the Barons, after three months siege; and the very next year, viz. 1256, its castle, founded by William the Conqueror, was stormed and taken by several of the Barons, under the French king's son. In the reign of Henry III. it was besieged by Simon Montford, who burnt its then wooden bridge and tower, and spoiled the church and priory, and then marched off. This city has also been several times destroyed by fire, viz. in 1130, on June 3. in 1137, and in 1177; after which it is said to have continued desolate till 1225, when it was repaired, ditched, and walled round. In the Saxon heptarchy there were three mints in Rochester two for the king and one for the bishop. In 1281, its old wooden bridge was carried off by the ice, in a sudden thaw after a frost which had made the Medway passable on foot. Another was built in the reign of Richard II. but pulled down again, on the rumour of an invasion from France. It was afterwards restored, but so often subject to expensive repairs, by reason of the rapid course of the river under it, as well as the great breadth and depth of it, that in the reign of Edward III. it was resolved to build a new bridge of stone; and the same was begun, and in a manner completed, at the expence of Sir John Cobham and Sir Robert Knolles, Edward III.'s generals, out of the spoils they had taken in France. It has 21 arches. The town is governed by a mayor, recorder, 12 aldermen, 12 common-councilmen, a town-clerk, three serjeants at mace, and a water-bailiff. To its cathedral belong a dean and six prebendaries. Gundulph's tower stands on the north side of the cathedral, and is supposed to have been built by the bishop, as a place of security for the treasures and archives of that church and see. Some suppose it to have been intended for a bell tower, and others for an ecclesiastical prison; but whatever might be its destination, its machicola ions, its loop-hole windows, and the thickness of its walls, show that strength and defence were considered as necessary. This tower was 60 feet high, but some part has lately fallen down; the walls are six feet thick, and contain within them an area of 20 feet square: it was divided into five floors or stories of unequal height, and had a communication with the upper part of the church, by means of an arch or bridge, the steps of which are still visible. It is supposed to have been erected after the cathedral was built. For the maintenance of its bridge, certain lands are tied down by parliament, to which it has sent members from the first. The town-house, built in the year 1687, for the courts, assizes, and sessions, and the charity-school, are two of the best public buildings here.—A mathematical school was founded here, and an alms-house for lodging six poor travellers every night, and allowing them 4d. in the morning when they depart, except persons contagiously diseased, rogues, and proctors. In the summer here are always six or eight lodgers, who are admitted by tickets from the mayor. The Roman Watling street runs through this town from Shooters-Hill to Dover. The mayor and citizens hold what is called a admiralty-court once a-year for regulating the oyster-fishery in the creeks and branches of the Medway that are within their jurisdiction,

tion, and for prosecuting the cable-hangers, as they are called, who dredge and fish for oysters without being free, by having served seven years apprenticeship to a fisherman who is free of the fishery. Every licensed dredger pays 6s. 8d. a-year to the support of the courts, and the fishery is now in a flourishing way. Part of the castle is kept in repair, and is used as a magazine, where a party of soldiers do constant duty. The bridge was repaired in 1744, and pallisadoed with new iron rails. In 1801 Rochester contained 6817 inhabitants, and in 1811, 9070. It consists of only one principal street, which is wide, and paved with flints. The houses are generally well built with brick, and inhabited by tradesmen and inn-keepers. It has also four narrow streets; but no sort of manufactory is carried on here. Stroud is at the west end of this place, and Chatham at the east. It is 27 miles north-west by west of Canterbury, and 30 south-east by east of London. Long. 0. 36. E. Lat. 51. 23. N.

ROCHESTER, *Earl of.* See WILMOT.

ROCK, a large mass of stone. See GEOLOGY.

ROCK, a species of VULTURE. See ORNITHOLOGY *Index.*

ROCK Basons are cavities or artificial basons of different sizes, from six feet to a few inches diameter, cut in the surface of the rocks for the purpose, as is supposed, of collecting the dew and rain pure as it descended from the heavens, for the use of ablutions and purifications, prescribed in the druidical religion; these, especially the dew, being deemed the purest of all fluids. There are two sorts of these basons, one with lips or communications between the different basons, the other simple cavities. The lips as low as the bottom of the basons, which are horizontal, and communicate with one somewhat lower, so contrived that the contents fell by a gradual descent through a succession of basons either to the ground, or into a vessel set to receive it. The basons without lips might be intended for reservoirs to preserve the rain or dew in its original purity without touching any other vessel, and was perhaps used for the druid to drink, or wash his hands, previous to officiating at any high ceremony, or else to mix with their misletoe.

Some of these basons are so formed as to receive the head and part of the human body; one of this kind is found on a rock called King Arthur's Bed, in the parish of North Hall in Cornwall, where are also others, called by the country people Arthur's troughs, in which they say he used to feed his dogs.

ROCK-Crystal, in Natural History, otherwise called *sprig-crystal,* a name given to quartz or siliceous stones, when pure and regularly crystallized. See MINERALOGY *Index.*

ROCK Salt. See SALT, GEOLOGY.

ROCK Oil. See PETROLEUM, MINERALOGY *Index.*

ROCK Fish. See GOBIUS, ICHTHYOLOGY *Index.*

ROCKET, an artificial fire-work, consisting of a cylindrical case of paper, filled with a composition of certain combustible ingredients; which, being tied to a stick, mounts into the air, and then bursts. See PYROTECHNY.

Theory of the Flight of Sky-ROCKETS. Mariotte takes the rise of rockets to be owing to the impulse or resistance of the air against the flame. Dr Desaguliers accounts for it otherwise.

Conceive the rocket to have no vent at the choak, and to be set on fire in the conical bore; the consequence will be, either that the rocket would burst in the weakest place, or, if all its parts were equally strong, and able to sustain the impulse of the flame, the rocket would burn out immoveable. Now, as the force of the flame is equable, suppose its action downwards, or that upwards, sufficient to lift 40 pounds. As these forces are equal, but their directions contrary, they will destroy each other's action.

Imagine then the rocket opened at the choak; by this means the action of the flame downwards is taken away, and there remains a force equal to 40 pounds acting upwards, to carry up the rocket, and the stick it is tied to. Accordingly, we find that if the composition of the rocket be very weak, so as not to give an impulse greater than the weight of the rocket and stick, it does not rise at all; or if the composition be slow, so that a small part of it only kindles at first, the rocket will not rise.

The stick serves to keep it perpendicular; for if the rocket should begin to stumble, moving round a point in the choak, as being the common centre of gravity of rocket and stick, there would be so much friction against the air by the stick between the centre and the point, and the point would beat against the air with so much velocity, that the friction of the medium would restore it to its perpendicularity.

When the composition is burnt out, and the impulse upwards has ceased, the common centre of gravity is brought lower towards the middle of the stick; by which means the velocity of the point of the stick is decreased, and that of the point of the rocket increased; so that the whole will tumble down, with the rocket-end foremost.

All the while the rocket burns, the common centre of gravity is shifting and getting downwards, and still the faster and the lower as the stick is the lighter, so that it sometimes begins to tumble before it be burnt out; but when the stick is a little too heavy, the weight of the rocket bearing a less proportion to that of the stick, the common centre of gravity will not get so low but that the rocket will rise straight, though not so fast.

ROCKET. See BRASSICA, BOTANY *Index.*

ROCKINGHAM, a town in Northamptonshire, in England, 87 miles from London, stands on the river Welland. It has a charity school, a market on Thursday, and a fair on Sep. 8. for five days. Its forest was reckoned one of the largest and richest of the kingdom, in which William the Conqueror built a castle; it extended, in the time of the ancient Britons, almost from the Welland to the Nen, and was noted formerly for iron works, great quantities of flags, *i. e.* the refuse of the iron ore, being met with in the adjacent fields. It extended, according to a survey in 1641, near 14 miles in length, from the west end of Middleton-Woods to the town of Mansford, and five miles in breadth, from Brigstock to the Welland; but is now dismembered into parcels, by the interposition of fields and towns, and is divided into three bailiwicks. In several of its woods a great quantity of charcoal is made of the tops of trees, of which many waggon-loads are sent every year to Peterborough. There is a spacious plain in it called Rockinghamshire, which is a common to the four towns of

Rockingham, Rodney.

of Cottingham, Rockingham, Corby, and Gretton. King William Rufus called a council here of the great men of the kingdom. In 1811 the population was 230. W. Long. 0. 46. N. Lat. 52. 32.

ROCKING STONES. See *Rocking-Stones.*

ROCKOMBOLE. See Allium.

ROD, a land measure of 16 feet and a half; the same with perch and pole.

Black Rod. See *Usher of the Black Rod.*

Fishing Rod, a long taper rod or wand, to which the line is fastened for angling. See *Fishing-Rod.*

RODNEY, George Bridges, Lord Rodney, was born in the year 1718. Of the place of his birth and the rank of his ancestors we have not been able to procure any well authenticated account. His father was a naval officer; and commanding, at the time of his son's birth, the yacht in which the king, attended by the duke of Chandois, was passing to or from Hanover, he asked and obtained leave to have the honour of calling his infant son *George Bridges.* The royal and noble godfathers advised Captain Rodney to educate his boy for his own profession, promising, as we have been told, to promote him as rapidly as the merit he should display and the regulations of the navy would permit.

Of young Rodney's early exertions in the service of his country, nothing, however, is known to the writer of this abstract, nor, indeed, any thing of sufficient importance to be inserted in articles so circumscribed as all our biographical sketches must be, till 1751, when we find him, in the rank of a commodore, sent out to make accurate discoveries respecting an island which was supposed to lie about 50° N. L. and about 300 leagues W. of England: but he returned without having seen any such island as that which he was appointed to survey. In the war which soon followed this voyage of discovery, he was promoted to the rank of a rear-admiral, and was employed to bombard Havre-de-Grace; which in 1759 and 1760 he considerably damaged, together with some shipping. In 1761 he was sent on an expedition against Martinico, which was reduced in the beginning of the year 1762, and about the same time St Lucia surrendered to Captain Harvey. Both these islands were restored to the French at the peace of 1763.

In reward for his services, he was created a knight of the Bath; but being inattentive, as many seamen are, to the rules of economy, his circumstances became so embarrassed that he was obliged to fly from his country, with very slight hopes of ever being able to return. He was in France when the ill advised policy of that court made them take a decided part with America against Great Britain; and it is said that some men in power, no strangers to the desperate state of Sir George's affairs, offered him a high command in the French navy, if he would carry arms against his own country. This offer he rejected with becoming indignation. Soon after this gallant behaviour, the duke de Chartres, afterwards the infamous Orleans, told Sir George that he was to have a command in the fleet which was to be opposed to that under the command of his countryman Mr Keppel; and with an insulting air asked him what he thought would be the consequence of their meeting? "That my countryman will carry your Highness with him to learn English," was the high-spirited reply — When the divisions, which the mutual recriminations of Admiral Keppel and Sir Hugh Palliser excited in the British navy, made it difficult for the ministry to procure experienced, and at the same time popular, commanders for their fleets, Lord Sandwich wrote to Sir George Bridges Rodney, offering him a principal command; but the difficulty was for the veteran to find money to pay his accounts in France, so that he might be permitted to leave that kingdom. The money, it has been repeatedly affirmed, was advanced to him by the courtiers whose offer he had before indignantly rejected. He arrived therefore in England, and was again employed in the service of his country. His first exploit after his appointment was in January 1780, when he took 19 Spanish transports bound from Cadiz to Bilboa, together with a 64 gun ship and 5 frigates, their convoy. On the 16th of the same month he fell in with the Spanish fleet, consisting of 11 sail of the line, under the command of Don Juan de Langara; of which one was blown up during the engagement, five were taken and carried into Gibraltar, among which was the admiral's ship, and the rest were much shattered. In April the same year, he fell in with the French fleet, under the command of Admiral Guichen, at Martinico, whom he obliged to fight, and whom he completely beat; though from the shattered state of his own fleet, and the unwillingness of the enemy to risk another action, he took none of their ships. The successful efforts of our gallant admiral during the year 1780 were generally applauded through the nation. He received the thanks of both Houses of Parliament, and addresses of thanks from various parts of Great Britain, and the islands to which his victories were more particularly serviceable. In December the same year, he made an attempt, together with General Vaughan, on St Vincent's, but failed. In 1781, he continued his exertions, with much success, in defending the West India Islands; and, along with the above-named general, he conquered St Eustatius; on which occasion his conduct to the inhabitants has been much, though perhaps unjustly, censured. The island was certainly a nest of contraband traders.

On the 12th of April 1782, he came to a close action with the French fleet under Count de Grasse; during which he sunk one ship and took five, of which the admiral's ship, the Ville de Paris, was one. The following year brought peace; but, as a reward for his numerous services, he had a grant of 2000l. a-year for himself and his two successors. He had long before been created a baronet, was rear-admiral of Great Britain, and at length was justly promoted to the peerage, by the title of Baron Rodney of Stoke, Somersetshire, and made vice-admiral of Great Britain. He was at one time also governor of Greenwich Hospital.

Lord Rodney had been twice married; first to the sister of the earl of Northampton, and secondly to the daughter of John Clies, Esq. with whom he did not reside for several years before his death, which happened on the 24th of May 1792. He was succeeded in title and estates by his son George, who married in 1781 Martha, daughter of the Right Hon. Alderman Harley, by whom he has issue.

Of the private life of Lord Rodney we know but little. His attention to the wants of the seamen, and the warrant officers serving under him, indicated that humanity which is always allied to true courage. He has

Rodney, Roe.

has often, from the number of dishes which his rank brought to his table, selected something very plain for himself, and sent the rest to the midshipmen's mess.—His public transactions will transmit his name with honour to posterity; his bravery was unquestionable, and his success has been seldom equalled. It has, indeed, been very generally said, that his skill in naval tactics was not great, and that he was indebted to the superior abilities of Capt. Young and Sir Charles Douglas for the manœuvres by which he was so successful against Langara and De Grasse. But, supposing this to be true, it detracts not from his merit. A weak or foolish commander could not always make choice of the ablest officers for his first captains, nor would such a man be guided by their advice.

Whatever was Lord Rodney's skill in the science of naval war, or however much he may have been beholden to the councils of others, he certainly possessed himself the distinguished merit of indefatigable exertion; for he never omitted any thing within the compass of his power to bring the enemy to action. He therefore unquestionably deserves the respect and the gratitude of his country. In the year 1783 the House of Assembly in Jamaica voted L.1000 towards erecting a marble statue to him, as a mark of their gratitude and veneration for his gallant services, so timely and gloriously performed for the salvation of that island in particular, as well as the whole of the British West India islands and trade in general. A pillar was also erected to the memory of this gallant officer, upon the Brythen in Shropshire.

But whatever were the talents of Lord Rodney as a naval commander, there is a more splendid part of his character which it would be improper to omit. Before his success against the Spanish admiral Don Langara, the English prisoners in Spain were treated with the greatest inhumanity, and it required more than ordinary strength of constitution to exist for any length of time in a Spanish prison. When the Spanish admiral fell into the hands of Lord Rodney, both himself, his officers, and men, expected to meet with the same treatment they had been accustomed to give; but they were astonished to find in Lord Rodney a man who felt for their misfortunes, relieved their wants, and who, by his polite behaviour to his prisoners, made a powerful impression on the minds of the Spaniards, which could not fail to procure a mitigation of the sufferings of English prisoners in Spain. He represented the miserable condition of his countrymen in the enemy's country, and obtained a promise that Englishmen, when prisoners in Spain, should be made as comfortable as their situation would permit. This was doing his country a service, which will make him stand as high in the estimation of good men as the most astonishing display of courage, which is not always met with in a cultivated mind.

ROE, the seed or spawn of fish. That of the male fishes is usually distinguished by the name of *soft roe*, or *milt*; and that of the female, *hard roe*, or *spawn*. So inconceivably numerous are these ovula or small eggs, that M. Petit found 342,244 of them in a carp of 18 inches; but M. Lieuwenhoek found in a carp no more than 211,629. This last gentleman observes, that there are four times this number in a cod; and that a common one contains 9,344,000 eggs.

ROE, in *Zoology*. See CERVUS, MAMMALIA *Index*.

ROEBUCK, JOHN, M. D. was born at Sheffield in Yorkshire, in the year 1718. His father was a manufacturer of Sheffield goods, and by his ability and industry procured a considerable fortune. He intended John to follow his own lucrative employment; but he was powerfully attached to other pursuits, and his father did not discourage his rising genius, but gave him a liberal education.

Roebuck.

When done with the school, he was put under the tuition of Dr Doddridge, by whose instructions he was rapidly improved in many branches of useful knowledge. During his residence in the Doctor's academy at Northampton, he became intimately acquainted with Mr Dyson and Dr Akenside, whose friendship lasted to the close of life.

Having completed his studies at the academy, he was afterwards sent to the university of Edinburgh, where he studied medicine and chemistry in particular, which then began to attract some attention in Scotland. He was much distinguished among his fellow students by his logical and metaphysical acuteness, and by great ingenuity in his arguments. At Edinburgh he likewise formed an acquaintance with Mr Hume, Dr Robertson, and other literary characters.

Having completed his medical studies at Edinburgh, and wholly attached to the practice of physic, he spent some time at the university of Leyden, where he obtained a degree in medicine. He received his diploma in February 1743, to which were affixed the respectable names of Muschenbroek, Osterdyk, Van Royen, Albinus, Gaubius, &c. He afterwards settled as a physician at Birmingham, a place which then began to make a rapid progress in arts, manufactures, and population, and where a favourable opening was presented to him by the death of an aged physician. In this capacity he had every thing to favour his success, such as his education, talents, and interesting manners, and he accordingly met with encouragement more rapid and extensive than his expectations had presaged. But it was soon found that his industry and studies were turned to other subjects than those of his profession, and in a particular manner to that of chemistry, the utility of which he was anxious to extend to the arts and manufactures. In the prosecution of this idea, he fitted up a laboratory in his own house, where every moment of his time was spent, not necessarily devoted to the duties of his profession. There he carried on various chemical processes of great importance, and laid the foundation of his future projects.

In this manner he was led to the discovery of certain improved methods of refining gold and silver, and an ingenious method of collecting the smaller particles of these metals, which manufacturers had formerly lost. He also discovered improved methods of making sublimate hartshorn, and many other articles of equal importance. Much of his time being still employed in the duties of his profession, he found it necessary to connect himself with some confidential person, and who might be qualified to assist him with the important establishments he had in view. He therefore made choice of Mr Samuel Garbet of Birmingham, a gentleman whose activity, abilities, and enterprising spirit, well qualified him for bearing his part in their subsequent undertakings.

In the year 1747, Dr Roebuck married Miss Ann Roe of Sheffield, a lady of a great and generous spirit, well

well qualified to support him under the many disappointments in business which he afterwards experienced. His chemical studies led him to the discovery of many things both of a public and private advantage.

The extensive use of sulphuric acid in chemistry led many to various methods of obtaining it, and Dr Roebuck attempted to prepare it in such a manner as to reduce the price, for which purpose he substituted leaden vessels in the room of glass; and he had the good fortune to effect his benevolent design. He established a manufacture of this useful article at Prestonpans in Scotland, in the year 1749, which was opposed by Dr Ward, but without success, as Roebuck's discovery did not come within Dr Ward's patent. By concealment and secrecy Dr Roebuck and his partner preserved the advantages of their industry and ingenuity for a number of years, supplying the public with sulphuric acid at a much cheaper rate than had been formerly done.

He found it expedient to give up his medical profession altogether, and he resided in Scotland during the greater part of the year. He made some discoveries in the smelting of iron-stone, greatly facilitating that process by using pit coal instead of charcoal. He and his partner therefore projected a very extensive manufactory of iron, for which they soon procured a sufficient capital, as their friends had much confidence in their integrity and abilities. Dr Roebuck at length made choice of a spot on the banks of the river *Carron* as the most advantageous situation for the establishment of their iron manufactory, abundance of iron-stone, lime-stone, and coal, being found in its immediate vicinity. The preparations for this establishment were finished in the end of the year 1759, and the first furnace was blown on the 1st of January 1760, after which a second was in a short time erected.

These works turned the attention of Dr Roebuck to the state of coal in the neighbourhood of that place, and to the means of procuring the extraordinary supplies of it which the iron-works might require in future. He therefore became lessee of the extensive coal and salt works at Borrowstownness, the property of the duke of Hamilton, in which he sunk, in the course of a few years, not only his own, and a considerable part of his wife's fortune, but the regular profits of his more successful works; and what distressed him above every thing else, the great sums of money which he borrowed from his relations and friends, without the prospect of ever being able to repay them. This ruinous adventure cut off for ever the flattering prospects of an independent fortune which his family once had; and he drew from his colliery only a moderate annual support, owing to the indulgence of his creditors. When he died, his widow was left without any provision for her immediate or future support, and without the smallest advantage from the extraordinary exertions and meritorious industry of her husband.

Some years before his death, Dr Roebuck was seized with a disorder that required a dangerous operation, and which he bore with his usual spirit and resolution. He was restored to a considerable share of his wonted health and activity; but its effects never wholly left him. He visited his works till within a few weeks of his decease, in order to give instructions to his clerks and overseers, and was confined to bed only a few days. He departed this life on the 17th of July, 1794, retaining all his faculties, spirit, and good humour, to the last.

A life so devoted to business left little time for publications of any kind; but the few he left behind him sufficiently show what might have been expected from his pen, had the most of his time been spent in study. All his writings that have been published, except two political pamphlets, are, a comparison of the heat of London and Edinburgh, experiments on ignited bodies, and observations on the ripening and filling of corn.

ROELLA, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 29th order, *Campanuceæ*. See BOTANY *Index*.

ROEMER, OLAUS, a celebrated Danish mathematician and astronomer, was born at Arhusen in Jutland, in the year 1644, and was sent to the university of Copenhagen at the age of 18. By his assiduous application to the study of astronomy and mathematics, he became so eminent in those sciences, that Picard was astonished and delighted with him, when making observations in the north, by the order of Lewis XIV. He was prevailed on to accompany Picard to France, and being presented to the king, he was chosen the dauphin's tutor in the study of mathematics. He was afterwards united with Picard and Cassini in making astronomical observations, and became a member of the Academy of Sciences in 1672.

His discoveries acquired him great reputation during his ten years residence at Paris; and he did not scruple to assert, that Picard and Cassini took the merit of many things which belonged exclusively to himself. Roemer was the first person who discovered the velocity with which light moves, by means of the eclipses of Jupiter's satellites, determining it to be about 7 or 8 minutes in coming from the sun to the earth. This opinion was opposed by many, but it was afterwards demonstrated in a most ingenious manner by Dr Bradley.

Christian V. king of Denmark, recalled Roemer to his native country in the year 1681, when he was appointed professor of astronomy at Copenhagen; and he was also employed in the reformation of the coin and architecture of the country, in regulating the weights and measures, and in laying out the high roads throughout the kingdom, in the discharge of which his conduct was truly creditable to himself, and gave the greatest satisfaction to his royal employer. The consequence was that the king bestowed many dignities upon him, and among others appointed him chancellor of the exchequer. In fine, he was made counsellor of state and burgomaster of Copenhagen, under Frederic IV. who succeeded Christian already mentioned.

While Roemer was engaged in preparing to publish the result of his observations, he was taken off by death on the 19th of September 1710, when about 66 years of age. Horrebow, his disciple, made up this loss, by publishing in 4to, in 1753, when professor of astronomy at Copenhagen, various observations of Roemer, with his method of observing, under the title of *Basis Astronomiæ*. He had also printed various astronomical observations and pieces in several volumes of the Memoirs of the Royal Academy of Sciences at Paris, of the institution of 1666, particularly vols. 1st and 10th of that collection.

ROGA, in antiquity, a present which the emperors made to the senators, magistrates, and even to the people; and the popes and patriarchs to their clergy. These rogæ were distributed by the emperors on the first day of the year, on their birth-day, or on the *natalis dies* of the cities; and by the popes and patriarchs in passion-week. Roga is also used for the common pay of the soldiers.

ROGATION, ROGATIO, in the Roman jurisprudence, a demand made by the consuls or tribunes of the Roman people, when a law was proposed to be passed. *Rogatio* is also used for the decree itself made in consequence of the people's giving their assent to this demand; to distinguish it from a *senatus consultum*, or decree of the senate.

ROGATION-Week, the week immediately succeeding Whitsunday; so called from the three feasts therein, viz. on Monday, Tuesday, and Wednesday.

ROGER DE HOVEDEN, a learned man of the 13th century, was born in Yorkshire, most probably at the town of that name, now called *Howden*, some time in the reign of Henry I. After he had received the first parts of education in his native country, he studied the civil and canon law, which were then become the most fashionable and lucrative branches of learning. He became domestic chaplain to Henry II. who employed him to transact several ecclesiastical affairs; in which he acquitted himself with honour. But his most meritorious work was, his Annals of England, from A. D. 731, when Bede's Ecclesiastical History ends, to A. D. 1202. This work, which is one of the most voluminous of our ancient histories, is more valuable for the sincerity with which it is written, and the great variety of facts which it contains, than for the beauty of its style, or the regularity of its arrangement.

ROGUE, in *Law*, an idle sturdy beggar; who by ancient statutes is for the first offence called a *rogue of the first degree*, and punished by whipping, and boring through the gristle of the right ear with a hot iron; and for the second offence, is termed a *rogue of the second degree*, and if above 18 years of age, ordered to be executed as a felon.

ROHAN, PETER DE, Chevalier de Gié, and marshal of France, better known by the name of *Marshal de Gié*, was the son of Louis de Rohan, the first of the name, lord of Guémené and Montauban, and descended of one of the most ancient and most illustrious families of the kingdom. The family of Rohan before the Revolution, held the rank of prince in France in consequence of deriving it so origin from the first sovereigns of Brittany, and clearly admitted by the dukes of Brittany themselves in the states general of that province held in 1088. The house of Rohan had still another advantage, which was common to it with very few families, even the most distinguished among the princes, namely that instead of having been aggrandized by the wealth procured from alliances, it had held in itself for seven centuries the largest possessions of any family in the kingdom.

One of the most distinguished branches of this family was Peter, the subject of the present article. Louis XI. rewarded his bravery with the staff of marshal of France in 1475. He was one of the four lords who governed the kingdom during the indisposition of that prince at Chinon in 1484. Two years afterwards he opposed the attacks of the archduke of Austria upon Picardy. He commanded the van-guard at the battle of Fornoue in 1495, and signalized himself much in that engagement His bravery procured him the countenance and confidence of Louis XII. who appointed him his prime counsellor, and general of the army in Italy; but these advantages he lost, by incurring the displeasure of Anne of Brittany the queen.

The marshal had stopped some of her equipage on the road to Nantz; for which that vindictive princess prevailed on her husband to enter into a process against him before the parliament of Toulouse, at that time the most rigorous and severe in the kingdom. He was on the 15th of February 1506 found guilty, banished from the court, and deprived of the privileges and emoluments of his office for five years. The expence of this prosecution amounted to more than 31,000 livres, and it did no honour either to the king or the queen. If indeed it be true, that the queen was never so much delighted as with the humiliation of her enemies, she had good reason to be satisfied here. John of Authon, who hath entered into a pretty full detail of this affair, reports that Gié, being removed to the *Chateau de Dreux*, became an object of ridicule to the witnesses who had sworn against him. He wore a long white beard, and, quite full of the thoughts of his disgrace, took it on one occasion in his hands and covered his face with it. An ape, belonging to Alain d'Albert, count of Dreux, jumped from a bed where his master was reposing himself, and attacked the beard of Gié, who, with some difficulty, extricated himself. This scene not only occasioned much laughter to the whole company who were present, but likewise became instantly the subject of the farces and mummeries which were then acting in France. Even the school-boys made a representation of it, where, alluding to the name of the queen, they said, that there was a marshal who wished to shoe an ass (*un ane*), but that he received such a blow with the foot, as threw him over the wall into the garden. Mareschal de Gié died at Paris, the 22d April 1513, perfectly disgusted with courts and grandeur.

ROHAN, Henry duke of, peer of France, and prince of Leon, was born at the Chateau de Blein in Brittany in 1579. Henry IV. under whose eyes he gave distinguished proofs of his bravery at the siege of Amiens, when only 16 years of age, loved him with as much affection as if he had been his own son. After the death of Henry, he became chief of the Calvinists in France; and was equally formidable for his genius as his sword. In defence of the civil and religious rights of his party, he maintained three wars against Louis XIII. The first, which terminated to the advantage of the Protestants, broke out when that prince wished to establish the Romish religion in Le Bearn: the second, because of the siege which Cardinal De Richlieu caused to be laid to Rochelle: and the third, when that place was besieged a second time. The consequences of this war are sufficiently known; Rochelle surrendered; and the duke de Rohan perceiving, that after the taking of this place, the majority of his party were endeavouring to make up matters with the court, succeeded in procuring for them a general peace in 1629, upon very honourable and advantageous terms. The only sacrifice of importance which the Huguenots were obliged to make, was their fortifications;

fortifications; which put it out of their power to renew the war. Some factious persons, dissatisfied with seeing their fortresses fall into their enemies hands, were ready to accuse their general of having sold them. This great man, undeserving of such odious ingratitude, presented his breast to these enraged malcontents, and said, "Strike, strike! I wish to die by your hands, after I have hazarded my life in your service." The peace of 1629 having extinguished the flame of civil war, the duke de Rohan, no longer of use to his party, and become disagreeable at court, retired to Venice. There is a very particular anecdote of him, extracted from the Memoirs of the duchess of Rohan, Margaret of Bethune, daughter of the famous Sully. Whilst the duke de Rohan was at Venice, a proposal was made to him from the Porte, that for 200,000 crowns, and an annual tribute of 20,000, the Grand Signior would give him the island of Cyprus, and fully invest him with the dignity and prerogatives of king. The duke was warmly inclined to comply with this proposal, and to settle in the island the Protestant families of France and Germany. He negociated this business at the Porte by means of the intervention of the patriarch Cyril, with whom he had much correspondence; but different circumstances, and in particular the death of the patriarch, occurred to break off the treaty. The republic of Venice chose Rohan for their commander in chief against the imperialists; but Louis III. took him from the Venetians, and sent him ambassador into Swisserland, and into the Grisons. He wished to assist these people in bringing back La Valteline under their obedience, the revolt of which the Spaniards and Imperialists encouraged. Rohan, being declared general of the Grisons, after many victories, drove the German and Spanish troops entirely from La Valteline in 1633. He defeated the Spaniards again in 1636 at the banks of the lake of Come. France, not thinking it proper to withdraw her troops, the Grisons rose up in arms, and the duke de Rohan, not satisfied with the conduct of the court, entered into a special treaty with them the 28th March 1637. This hero, fearing the resentment of cardinal de Richlieu, retired to Geneva, with a view to join his friend the duke of Saxe-Weimar, who wished him to undertake the command of his army, then ready to engage the Imperialists near Rhinfield. Although he declined this honour, yet he took the command of the regiment of Nassau, with which he threw the enemy into confusion; but was himself wounded, February 28. 1683, and died of his wounds the 13th of April following, at the age of 59. He was interred May 27. in the church of St Pierre in Geneva, where there is a magnificent monument of marble erected to his memory, having on it the most illustrious actions of his life. The duke de Rohan was one of the greatest generals of his time, equal to the princes of Orange, and capable, like them, of settling a commonwealth; but more zealous than they for religion, or at least appearing to be so. He was vigilant and indefatigable, not allowing himself any pleasures which might take off his attention from his necessary employments, and well qualified for being the head of a party; a post very difficult to retain, and in which he had to fear equally from his enemies and his friends. It is in this light that Voltaire has viewed this illustrious character, when he composed the following verse:

Avec tous les talens le Ciel l'avoit fait naître:
Il agit en Heros: en Sage il écrivit.
Il fut même grand homme en combattant son Maître,
Et plus grand lorsqu'il le servit.

His military virtues were much heightened by the sweetness of his disposition, his affable and courteous manners, and by a generosity which had few examples. Neither ambition, pride, nor a view of gain, could ever be traced in his character. He was wont to say, that "true glory and a zeal for the public good never dwelt where self-interest reigned." Rohan had always a particular regard for Henry the Fourth: "Truly (said he, sometime after the death of that prince) when I think of him, my heart is ready to break. A wound received in his presence would have afforded me more satisfaction than now to gain a battle. I would have valued an encomium from him in this art, of which he was the greatest master of his time, more than the united praises of all the commanders now living." He wrote several interesting performances: 1. The Interests of Princes, printed at Cologne in 1666, in 12mo: in which work he fully examines the public interests of all the princes of Europe. 2. The Perfect General, or an abridgement of the wars from Cæsar's Commentaries, in 12mo. In this he makes it appear, that a knowledge of the tactics of the ancients might be of much use to the moderns. 3. A Treatise on the Corruption of the Ancient Militia. 4. A Treatise on the Government of the Thirteen Provinces. 5. Memoirs; the best edition of which is in 2 vols. 12mo. They contain the history of France from 1610 to 1629. 6. A Collection of some Political Discourses on State Affairs, from 1612 to 1629, 8vo, Paris, 1644, 1693, 1755; with the Memoirs and Letters of Henry Duke de Rohan relative to the war of La Valteline, 3 vols. 12mo, Geneva, 1757. This was the first edition which appeared of these curious memoirs: We owe it to the great attention and diligence of M. le Baron de Zurlauben, who published them from different authentic manuscripts. He likewise ornamented this edition with geographical, historical, and genealogical notes, and a preface, which contains an abridged, but highly interesting life, of the duke de Rohan, author of the memoirs. The Abbé Pérau has also written a life of him, which occupies the 21st and 22d volumes of the History of the Illustrious Men of France. Some want of spirit might be excused in the detail of wars finished upwards of 140 years ago; yet the memoirs of the duke de Rohan still afford considerable pleasure in the perusal. He tells his story with humour, with sufficient exactness, and in such a style as procures the confidence of the reader.

ROHAULT, James, a celebrated Cartesian philosopher, was the son of a merchant of Amiens, where he was born in 1620. He became well skilled in the mathematics, and taught them at Paris, where he became acquainted with M. Clerselier, an advocate, who gave him his daughter in marriage. Rohault also taught philosophy in the same city with uncommon applause. He there improved the arts, and gave excellent lectures to the artists and workmen. He died at Paris in 1675. He wrote in French, 1. A Treatise on Natural Philosophy. 2. The Elements of the Mathematics. 3. A Treatise on Mechanics, which is very curious. 4. Philosophical

losophical Conversations, and other works. His Physics have been translated into Latin, by Dr Samuel Clarke, with notes, in which the Cartesian errors are corrected upon the Newtonian system.

ROLANDRA, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. The common calyx consists of distinct *flosculi*, between each of which are short *squamæ*, the whole forming a round head. The partial calyx is bivalved. The corolla is small and funnel-shaped, the tube small as a thread, the *laciniæ* short and acute. The stamina are five; the style bifid. It has no other seed-vessel except the partial calyx, which contains a long three-sided seed. Of this there is only one species, viz. the Argentea, a native of the West Indies, and found in copses and waste lands.

ROLL, in manufactories, something wound and folded up in a cylindrical form.

Few stuffs are made up in rolls, except satins, gauses, and crapes; which are apt to break, and take plaits not easy to be got out, if folded otherwise. Ribbons, laces, gallons, and paduas of all kinds, are also thus rolled.

A roll of tobacco, is tobacco in the leaf, twisted on the mill, and wound twist over twist about a stick or roller. A great deal of tobacco is sold in America in rolls of various weights; and it is not till its arrival in England, Spain, France, and Holland, that it is cut.

A roll of parchment, properly denotes the quantity of 60 skins.

The ancients made all their books up in the form of rolls; and in Cicero's time the libraries consisted wholly of such rolls.

Roll, in *Law*, signifies a schedule or parchment which may be rolled up by the hand into the form of a pipe.

In these schedules of parchment, all the pleadings, memorials, and acts of court, are entered and filed by the proper officer; which being done, they become records of the court. Of these there are in the exchequer several kinds, as the great wardrobe roll, the cofferer's roll, the subsidy-roll, &c.

Roll is also used for a list of the names of persons of the same condition, or of those who have entered into the same engagement. Thus a court-roll of a manor, is that in which the names, rents, and services, of each tenant are copied and enrolled.

Calves-head Roll, a roll in the two temples in which every bencher is taxed yearly at 2s. every barrister at 1s. 6d. and every gentleman under the bar at 1s. to the cook and other officers of the house, in consideration of a dinner of calves-heads provided in Easter-term.

*Muster-*Roll, that in which are entered the soldiers of every troop, company, regiment, &c. As soon as a soldier's name is written down on the roll, it is death for him to desert.

Rolls-Office, is an office in Chancery-lane, London, appointed for the custody of the rolls and records in chancery.

Master of the Rolls. See *Master of the Rolls.*

*Rider-*Roll, a schedule of parchment frequently sewed or added to some part of a roll or record.

Rolls of Parchment, are the manuscript registers or rolls of the proceedings of our ancient parliaments, which before the invention of printing were all engrossed on parchment, and proclaimed openly in every county. In these rolls are also contained a great many decisions of difficult points of law, which were frequently in former times referred to the decision of that high court.

Roll, or *Roller*, is also a piece of wood, iron, brass, &c. of a cylindrical form, used in the construction of several machines, and in several works and manufactures.

Thus in the glass manufacture they have a running-roll, which is a thick cylinder of cast brass, which serves to conduct the melted glass to the end of the table on which large looking-glasses, &c. are cast.

Founders also use a roll to work the sand which they use in making their mould.

The presses called *calendars*, as serving to calendar stuffs withal, consist, among other essential parts, of two rollers. It is also between the two rollers that the waves are given to silks, mohairs, and other stuffs proper to be tabbied.

Impressions from copper-plates are also taken by passing the plate and paper between two rollers. See *Rolling-Press* Printing.

Rolls, in flatting-mills, &c. are two iron instruments of a cylindrical form, which serve to draw or stretch out plates of gold, silver, and other metals.

Rolls, in sugar-works, are two large iron barrels which serve to bruise the canes, and to express the juice. These are cast hollow, and their cavities are filled up with wood, the cylinders of which are properly the rollers.

ROLLER, in *Surgery*, a long and broad bandage, usually of linen-cloth, rolled round any part of the body, to keep it in, or dispose it to a state of health.

ROLLI, Paul, an Italian poet, was born at Rome in 1687. He was the son of an architect, and a pupil of the celebrated Gravina, who inspired him with a taste for learning and poetry. An intelligent and learned English lord having brought him to London, introduced him to the royal family as a master of the Tuscan language. Rolli remained in England till the death of Queen Caroline his protector, and the patroness of literature in general. He returned to Italy in 1747, where he died in 1767, in the 80th year of his age, leaving behind him a very curious collection in natural history, &c and a valuable and well chosen library. His principal works first appeared in London in 1735, in 8vo. They consist of Odes in blank verse, Elegies, Songs, &c. after the manner of Catullus, and a Collection of Epigrams, printed at Florence in 1776, in 8vo, to which is prefixed an account of his life by the abbé Fontini. What Martial said of his own Collection may be said of this, "That there are few good, but many indifferent or bad, pieces in it." Rolli, however, bore the character of one of the best Italian poets of his age. During his stay in London, he procured editions of several authors of his own country. The principal of these were, the Satires of Ariosto, the Burlesque Works of Berni, Varchi, &c. 2 vols. in 8vo, which possesses considerable merit. The Decameron of Boccace, 1727, in 4to and folio; in which he has faithfully copied the celebrated and valuable edition published by the *Juntes* in 1527; and, lastly, of the elegant Lucretia of Marchetti, which, after the manuscript was revised, was printed at London

in 1717, in 8vo, through the influence and attention of Rolli. This edition is beautiful; but the work is thought to be of a pernicious tendency. He likewise translated into Italian verse the Paradise Lost of Milton, printed at London in folio, in 1735; and the Odes of Anacreon, London 1739, in 8vo.

ROLLIN, Charles, a justly celebrated French writer, was the son of a cutler at Paris, and was born there on the 30th of January 1661. He studied at the college Du Plessis, in which he obtained a bursary through the interest of a Benedictine monk of the White Mantle, whom he had served at table, and who discovered in him some marks of genius. Here he acquired the regard of M. Gobinet, principal of that college, who had a particular esteem for him. After having studied humanity and philosophy at the college of Du Plessis, he applied to divinity three years at the Sorbonne; but he did not prosecute this study, and never rose in the church higher than to the rank of a tonsured priest. He afterwards became professor of rhetoric in the same college; and in 1688, succeeded Horsan, his master, as professor of eloquence, in the royal college. No man ever exercised the functions of it with greater eclat: he often made Latin orations, to celebrate the memorable events of the times; and frequently accompanied them with poems, which were read and esteemed by every body. In 1694, he was chosen rector of the university; and continued in that office two years, which was then a mark of distinction. By virtue of his office, he spoke the annual panegyric upon Louis XIV. He made many very useful regulations in the university; and particularly revived the study of the Greek language, which was then much neglected. He substituted academical exercises in the place of tragedies; and introduced the practice which had been formerly observed, of causing the students to get by heart passages of Scripture. He was a man of indefatigable attention; and trained innumerable persons, who did honour to the church, the state, and the army. The first president Portail was pleased one day to reproach Rollin in a jocular strain, as if he exceeded even himself in doing business: to whom Rollin replied, with that plainness and sincerity which was natural to him, "It becomes you well, Sir, to reproach me with this: it is this habit of labour in me which has distinguished you in the place of advocate-general, which has raised you to that of first president: you owe the greatness of your fortune to me."

Upon the expiration of the rectorship, Cardinal Noailles engaged him to superintend the studies of his nephews, who were in the college of Laon; and in this office he was agreeably employed, when, in 1699, he was with great reluctance made coadjutor to the principal of the college of Beauvais. This college was then a kind of desert, inhabited by very few students, and without any manner of discipline: but Rollin's great reputation and industry soon re-peopled it, and made it that flourishing society it has ever since continued. In this situation he continued till 1712; when the war between the Jesuits and the Jansenists drawing towards a crisis, he fell a sacrifice to the prevalence of the former. Father le Tellier, the king's confessor, a furious agent of the Jesuits, infused into his master prejudices against Rollin, whose connections with Cardinal de Noailles would alone have sufficed to have made him a Jansenist; and on this account he lost his share in the principality of Beauvais. No man, however, could have lost less in this than Rollin, who had every thing left him that was necessary to make him happy; retirement, books, and enough to live on. He now began to be employed upon Quinctilian; an author he justly valued, and saw neglected not without uneasiness. He retrenched in him whatever he thought rather curious than useful for the instruction of youth; he placed summaries or contents at the head of each chapter; and he accompanied the text with short select notes. His edition appeared in 1715, in 2 vols. 12mo, with an elegant preface, setting forth his method and views.

In 1710, the university of Paris, willing to have a head suitable to the importance of their interests in a very critical conjuncture of affairs, chose Rollin again rector: but he was displaced in about two months by a lettre de cachet. The university had presented to the parliament a petition, in which it protested against taking any part in the adjustment of the late disputes; and their being congratulated in a public oration by Rollin on this step, occasioned the letter which ordered them to choose a rector of more moderation. Whatever the university might suffer by the removal of Rollin, the public was probably a gainer; for he now applied himself to compose his Treatise upon the Manner of Studying and Teaching the Belles Lettres, which was published, two volumes in 1726, and two more in 1728, 8vo.

This work has been justly esteemed for the sentiments of religion which animate its author, whose zeal for the public good prompted him to select the choicest passages of Greek and Latin authors. The style is sufficiently elegant, but the language on some occasions is not remarkable for delicacy; and in the book altogether, there is neither much order nor depth. The author has indeed spoken of common things agreeably, and has spoken as an orator on subjects which demand the investigation of the philosopher. One can scarcely reduce any thing in him to principles.—For example, the three species of eloquence; the simple, the temperate, and the sublime, can scarcely be understood from him when we read that the one resembles a frugal table; the second a beautiful ruin, with green wood growing on its banks; and the third thunder and an impetuous river which overthrows every thing that opposes it.

The work, however, has been exceedingly successful, and justly so; and its success encouraged its author to undertake another work of equal use and entertainment; his *Histoire Ancienne*, &c. or "Ancient History of the Egyptians, Carthaginians, Assyrians, Babylonians, Medes and Persians, Macedonians, and Greeks," which he finished in 13 vols. 8vo, and published between 1730 and 1738. M. Voltaire, after having observed that Rollin was "the first member of the university of Paris who wrote French with dignity and correctness," says of this work, that "though the last volumes, which were written in too great a hurry, are not equal to the first, it is nevertheless the best compilation that has yet appeared in any language; because it is seldom that compilers are eloquent, and Rollin was remarkably so." This is perhaps saying too much. There are indeed in this work some passages very well handled; but they are only such as he had taken from the ancient authors, in doing justice to whom he was always very happy.

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The reader will easily discover in this work the same attachment to religion, the same desire for the public good, and the same love of virtue, which appears in that on the belles lettres. But it is to be lamented that his chronology is neither exact nor corresponding; that he states facts inaccurately; that he has not sufficiently examined the exaggerations of ancient historians; that he often interrupts the most solemn narrations with mere trifles; that his style is not uniform; and this want of uniformity arises from his borrowing from writers of a modern date 40 or 50 pages at a time. Nothing can be more noble and more refined than his reflections; but they are strewed with too sparing a hand, and want that lively and laconic turn on account of which the historians of antiquity are read with so much pleasure. He transgresses the rule which he himself had established in his Treatise on Studies. "The precepts which have a respect to manners (says he) ought, in order to make an impression, to be short and lively, and pointed like a dart. That is the most certain method of making them enter and remain on the mind." There is a visible negligence in his diction with regard to grammatical custom, and the choice of his expressions, which he does not choose at all times with sufficient taste, although, on the whole, he writes well, and has preserved himself free from many of the faults of modern authors. While the last volumes of his Ancient History were printing, he published the first of his Roman History; which he lived to carry on, through the eight and into part of the ninth, to the war against the Cimbri, about 70 years before the battle of Actium. Mr Crevier, the worthy disciple of Rollin, continued the history to the battle of Actium, which closes the tenth volume; and has since completed the original plan of Rollin in 16 vols. 12mo, which was to bring it down from the foundation of the city to the reign of Constantine the Great. This history had not so great success as his Ancient History had. Indeed it is rather a moral and historical discourse than a formal history; for the author does little more than point out some more remarkable events, while he dwells with a sort of prolixity on those parts which furnish him a free field for moralizing. It is alternately diffuse and barren; and the greatest advantage of the work is, that there are several passages from T. Livy translated with great elegance into French. He also published A Latin Translation of most of the Theological Writings relative to the disputes of the Times in which he lived. Rollin was one of the most zealous adherents of Deacon Paris; and before the inclosure of the cemetery of St Medard, this distinguished character might have been often seen praying at the foot of his tomb. This he confesses in his Letters. He published also Lesser Pieces; containing different Letters, Latin Harangues, Discourses, Complimentary Addresses, &c. Paris 1771, 2 vols. 12mo. A collection which might have been contained in one volume, by keeping in only the best pieces. It is notwithstanding valuable for some good pieces which it contains, for the favourable opinion which it exhibits of solid probity, sound reason, and the zeal of the author for the progress of virtue and the preservation of taste. The Latin of Rollin is very correct, and much after the Ciceronian style, and embelished with most judicious thoughts and agreeable images. Full of the reading of the ancients, from which he brought quotations with as much propriety as plenty, he expressed himself with much spirit and excellence. His Latin poems deserve the same eulogium.

This excellent person died in 1741. He had been named by the king a member of the academy of inscriptions and belles lettres in 1701: but as he had not then brought the college of Beauvais into repute, and found he had more business upon his hands than was consistent with a decent attendance upon the functions of an academician, he begged the privileges of a veteran, which were honourably granted him. Nevertheless, he maintained his connections with the academy, attended their assemblies as often as he could, laid the plan of his Ancient History before them, and demanded an academician for his censor. Rollin was a man of an admirable composition; very ingenious, consummate in polite learning, of rigid morals, and eminently pious. He was rather too religious; his religion carrying him into the territories of superstition; and he wanted nothing but a mixture of the philosophic in his nature to make him a very perfect character. Nothing could be more benign, more pacific, more sweet, more moderate, than Rollin's temper. He showed, it must be owned, some zeal for the cause of Jansenism; but in all other respects he was exceedingly moderate. The celebrated poet Rousseau conceived such a veneration for him, that he came out of banishment incognito to Paris, on purpose to visit him and pay his respects to him. He looked upon his histories, not only as the best models of the historic kind, but as a complete system of politics and morals, and a most instructive school for princes as well as subjects to learn all their duties in.

Instead of blushing at the lowness of his birth, Rollin on no occasion hesitated to speak of it. "It is from the Cyclop's shop (says he, in a Latin epigram to one of his friends, to whom he had sent a small sword) that I have taken my flight towards Parnassus." He was not, however, without some share of vanity, especially at hearing mention made of his writings, of which the well-timed praises of his adherents had given him a very high opinion. He spoke without any dissimulation what he thought; and his opinions were less the effect of presumption than of openness of heart. He was one of those men who are vain without any mixture of pride. Rollin spoke pretty well; but he had a greater readiness of writing than speaking; and much more satisfaction might be derived from his works than from his conversation. His name became famous throughout Europe; several princes sought the honour of his friendship. The duke of Cumberland and the prince-royal of Prussia (afterwards king) were among the list of his admirers. This monarch honoured him with several letters; in one of which he pays him the following compliment, "Men of your character are fit companions for kings." As to the literary merit of this author, it was, we suspect, too much extolled in his own time, and has been too much undervalued in ours.

ROLLING, the motion by which a ship rocks from side to side like a cradle, occasioned by the agitation of the waves.

Rolling, therefore, is a sort of revolution about an imaginary axis passing through the centre of gravity of a ship: so that the nearer the centre of gravity is to the keel, the more violent will be the rolling motion; because the centre about which the vibrations are made

is

is placed so low in the bottom, that the resistance made by the keel to the volume of water which it displaces in rolling, bears very little proportion to the force of the vibration above the centre of gravity, the radius of which extends as high as the mast-heads.

But if the centre of gravity is placed higher above the keel, the radius of vibration will not only be diminished, but an additional force to oppose the motion of rolling will be communicated to that part of the ship's bottom which is below the centre of gravity.

So far as relates to the effect of rolling, when produced by the quality or stowage of the ballast, and to the manner by which it may be prevented, viz. a change of the quantity or disposition of the ballast, we shall endeavour to explain under the article Trim. It may, however, be necessary to remark, that the construction of the ship's bottom may also contribute to diminish this movement considerably.

Many fatal disasters have happened to ships arising from violent rollings; as the loss of the masts, loosening of the cannon, and straining violently on the decks and sides, so as to weaken the ship to a great degree. See Pitching.

Rolling-Press. See *Rolling-Press.*

Rolling-Tackle, a pulley or purchase fastened to that part of a sail-yard which is to the windward of the mast, in order to confine the yard close down to the leeward when the sail is furled.

It is used to prevent the yard from having a great friction against the mast in a high sea, which would be equally pernicious to both.

ROLLO, the conqueror of Normandy, was a Norwegian duke, banished from his country by Harold Harfager, who conquered Norway in 870, on account of the piracies he exercised. He first retired with his fleet among the islands of the Hebrides to the north-west of Scotland, whither the flower of the Norwegian nobility had fled for refuge ever since Harold had become master of the whole kingdom. He was there received with open arms by those warriors, who, eager for conquest and revenge, waited only for a chief to undertake some glorious enterprise. Rollo setting himself at their head, and, seeing his power formidable, sailed towards England, which had been long as it were a field open on all sides to the violence of the northern nations. But the great Alfred had some years before established such order in his part of the island, that Rollo, after several fruitless attempts, despaired of forming there such a settlement as should make him amends for the loss of his own country. He pretended, therefore, to have had a supernatural dream, which promised him a glorious fortune in France, and which served at least to support the ardour of his followers. The weakness of the government in that kingdom, and the confusion in which it was involved, were still more persuasive reasons to insure them of success. Having therefore sailed up the Seine to Rouen, he immediately took that capital of the province, then called *Neustria,* and making it his magazine of arms, he advanced up to Paris, to which he laid siege in form. This war at length ended in the entire cession of Neustria, which Charles the Simple was obliged to give up to Rollo and his Normans in order to purchase a peace. Rollo received it in perpetuity to himself and his posterity, as a feudal duchy dependant on the crown of France. A description of the interview between Charles and this new duke gives us a curious picture of the manners of these Normans (as they were called by foreigners); for the latter would not take the oath of fealty to his sovereign lord any other way than by placing his hands within those of the king; and absolutely refused to kiss his feet, as custom then required. It was with great difficulty he was prevailed on to let one of his warriors perform this ceremony in his stead; but the officer to whom Rollo deputed this service, suddenly raised the king's foot so high, that he overturned him on his back; a piece of rudeness which was only laughed at: to such a degree were the Normans feared, and Charles despised.

Soon after, Rollo was persuaded to embrace Christianity, and he was baptized with much ceremony by the archbishop of Rouen in the cathedral of that city. As soon as he saw himself in full possession of Normandy, he exhibited such virtues as rendered the province happy, and deserved to make his former outrages forgotten. Religious, wise, and liberal, this captain of pirates became, after Alfred, the greatest and most humane prince of his time.

ROLLOCK, Robert, the first principal of the university of Edinburgh, was the son of David Rollock of Powis, in the vicinity of Stirling. He was born in the year 1555, and was taught the rudiments of the Latin tongue by a person then eminent in his profession. He was sent from school to the university of St Andrews, where his progress was so rapid, that he was made professor of philosophy soon after he obtained the degree of master of arts.

The magistrates of Edinburgh having petitioned the king to found a university in that city, they obtained a charter under the great seal, by which they were allowed all the privileges of a university, which was built in 1582, and Mr Rollock was chosen principal and professor of divinity. He was soon famous in the university on account of his lectures, and among his countrymen at large for his persuasive mode of preaching. In the year 1593, Principal Rollock and others were appointed by parliament to confer with the popish lords; and in the following year he was one of those made choice of by the general assembly, to present his majesty with a paper, entitled, *the dangers which, through the impunity of excommunicated papists, traffickers with the Spaniards, and other enemies of the religion and state, are imminent to the true religion professed within this realm, his majesty's person, crown, and liberty of this our native country.* His zeal against popery was carried to excess, and he seems to have been of opinion, that it was incumbent on the civil magistrate to punish idolatry with death. In the year 1595, he was empowered, along with others, to visit the different universities in Scotland, with a view to enquire into the doctrine and practice of the different masters, the discipline adopted by them, and the state of their rents and living, which they were ordered to report to the next general assembly.

He was chosen moderator of the general assembly in the year 1597, at which period he was fortunate enough to obtain the redress of several glaring abuses. The greater part of his life was spent in conducting the affairs of the church, yet Spottiswood assures us that he would rather have preferred retirement and study. Indeed,

deed, the feebleness of his constitution was not equal to the hurry and bustle of public life, which he did not love equal to the retirement of study. He was very much affected with the stone, the pains of which he bore with the fortitude and resignation of a Christian. He died at Edinburgh on the last day of February 1598, in the 43d year of his age, beseeching his brethren, in his last moments, to be more dutiful and obedient to their gracious sovereign.

Short as his life was, he published many works, of which the following is a summary. A Commentary on the first book of Beza's Questions; on St Paul's Epistle to the Ephesians; on the prophet Daniel; a Logical Analysis of St Paul's Epistle to the Romans; some Questions and Answers concerning the covenant of Grace and the Sacraments; a treatise of Effectual Calling; a Commentary on the Epistles of Paul to the Thessalonians and Philemon; on fifteen select psalms; on the Gospel of St John, with a harmony of the four Evangelists upon the death, resurrection, and ascension of Jesus Christ; certain Sermons on several places of St Paul's Epistles; a Commentary on the Epistle to the Colossians; a Logical Analysis of the Epistle to the Hebrews; of the Epistle to the Galatians; a Commentary upon the first two chapters of the first Epistle of St Peter; a Treatise of Justification, and another of Excommunication. All these, except the Sermons, were written in Latin. The following epitaph seems to prove that Rollock was much esteemed at the university over which he presided.

Te Rolloce, extincto, urbs mœsta, academia mœsta est;
Et tota exequiis Scotia mœsta tuis.
Uno in te nobis dederat Deus omnia, in uno
Te Deus eripuit omnia quæ dederit.

ROMAN, in general, something belonging to the city of Rome. See Rome.

King of the ROMANS, in *Modern History*, is a prince elected to be successor to the reigning emperor of Germany.

ROMANCE, in matters of literature, a fabulous relation of certain adventures designed for the entertainment and instruction of the readers, and differing from the *novel* as it always exhibits actions great, dangerous, and generally extravagant. Many authors of the first name have written on the ancient *romance*. It has exercised the pen of Hurd, of Warburton, and of some ladies, who have not thought it any derogation to the sensibility of their sex to unite antiquarian research with the cultivation of the *belles lettres*. We have not, however, seen anywhere so concise, just, and elegant an account of the origin and progress of *romances* as in D'Israeli's Curiosities of Literature. "Romance (says this writer) has been elegantly defined the offspring of fiction and love. Men of learning have amused themselves with tracing the epocha of romances. In this research they have displayed more ingenuity than judgement; and some have fancied that it may have existed as far back as the time of Aristotle; Dearchus, one of his disciples, having written several works of this amusing species.

"Let us, however, be satisfied in deriving it from the Theagenes and Chariclea of Heliodorus, a bishop who lived in the 4th century, and whose work has been lately translated. This elegant prelate was the Grecian Fenelon (A). Beautiful as these compositions are when the imagination of the writer is sufficiently stored with accurate observations on human nature, in their birth, like many of the fine arts, they found in the zealots of religion men who opposed their progress. However Heliodorus may have delighted those who were not insensible to the felicities of a fine imagination, and to the enchanting elegancies of style, he raised himself, among his brother ecclesiastics, enemies; who at length so far prevailed, that it was declared by a synod, that his performance was dangerous to young persons, and that if the author did not suppress it, he must resign his bishopric. We are told he preferred his romance to his bishopric. Even so late as in Racine's time, it was held a crime to peruse these unhallowed pages. He informs us, that the first effusions of his muse were in consequence of studying that ancient romance, which his master observing him to devour with the keenness of a famished man, he snatched it from his hands and flung it in the fire; a second copy experienced the same fate. What could Racine do? He bought a third, and took the precaution of devouring it secretly till he got it by heart; after which he offered it to his master with a smile to burn, if he chose, like the others.

The decision of these bigots was founded in their opinion of the immorality of such works. They alleged, that the writers paint too warmly to the imagination, address themselves too forcibly to the passions, and, in general, by the freedom of their representations, hover on the borders of indecency. This censure is certainly well-founded. Many of the old romances, and even of the dramas, acted in Scotland two centuries ago, are such as common prostitutes would in this age think indecent. But we are at present concerned with the origin of Romance.

"The learned Fleury thinks that they were not known till the 12th century, and gives as their original the history of the Dukes of Normandy. Verdier, whose opinion is of no great weight, says the invention of romance was owing to the Normans of France; and that these fictions being originally written in the old Norman language, they were entitled *Normances;* the name was afterwards altered to that of *Romances*. The Spaniards, who borrowed them from the French, called them *Romanzes*, which also did the Italians.

"Dom

(A) An ingenious and learned friend inquires, 'Is not the romance of the Golden Ass, by Apuleius, to be considered as an earlier specimen than that of Heliodorus?' To this our author has no objection; but he would not warrant *any* romance to be the *first* that ever was written. It is thus that some writers, more learned than sagacious, have discovered the first inventor of epistolary correspondence. A lady receives this honour: such learning is desperate! From the Asiatic Researches, and other publications on Oriental literature, we are led to believe, that the native country of romance is the east; where it seems to have flourished in all its extravagant grandeur from time immemorial.

"Dom Rivet, one of the learned associates of the congregation of St Maur, authors of the Literary History of France, fixes their origin in the 10th century. He says, that the most ancient romance known was one which appeared in the middle of that century, under the title of *Philomena*, or *the Beloved*. This romance contains the pretended exploits of Charlemagne before Narbonne. At Toulouse, he tells us, they have preserved a copy of the Philomena in its original language; that is to say, the Romaunt or polished; such as was then spoken at court. They preferred this language to the Latin, which was then that of the common people, but vitiated with their corruptions.

"So far have we travelled on the road of conjecture: we shall now turn into the path of fact. It is certain that these compositions derive their name from the language in which they were first written. Abbe Iraild has given us the character of the earliest romances, which we shall transcribe; for to add to what is well expressed, however it may please the vanity of a writer, seldom tends to the gratification of the reader.

'The first romances were a monstrous assemblage of histories, in which truth and fiction were equally blended, but all without probability; a composition of amorous adventures, and all the extravagant ideas of chivalry. The incidents are infinitely multiplied; destitute of connection, of order, and art. These are the ancient and miserable romances which Cervantes, in his celebrated satirical romance of Don Quixote, has covered with an eternal ridicule.'

"It is, however, from these productions rather in their improved state, that poets of all nations have drawn their richest inventions. The agreeable wildness of that fancy which characterised the eastern nations was caught by the crusaders. When they returned home, they mingled in their own the customs of each country. The Saracens, who were men like themselves, because they were of another religion, and were therefore their enemies, were pictured under the tremendous form of *Paynim Giants*. The credulous reader of that day followed with trembling anxiety the *Red-cross Knight*. It was thus that fiction embellished religion, and religion invigorated fiction. Such incidents have enlivened the cantos of Ariosto, and adorned the epic of Tasso. Spencer is the child of their creation; and it is certain that we are indebted to them for some of the bold and strong touches of Milton."

Other circumstances however have been assigned as the sources of these extravagant fictions. "Castles were erected to repulse the vagrant attacks of the Normans; and in France (from the year 768 to 987) these places became fatal to the public repose. The petty despots who raised these castles, pillaged whoever passed, and carried off the females who pleased them. Rapine, of every kind, was the privilege of Lords! Mezeray observes, that it is from these circumstances romancers have invented their tales of knights errant, monsters, and giants.

"De Saint Foix, in his Historical Essays on this subject, thus expresses himself: 'Women and girls were not in greater security when they passed by abbeys. The monks sustained an assault rather than relinquish their prey: if they saw themselves losing ground, they brought to their walls the relics of some saint. Then it generally happened that the assailants, seized with awful veneration, retired, and dared not to pursue their vengeance. This is the origin of the enchanters of the enchantments, and of the enchanted castles, described in romances.'

"To these may be added what the author of Northern Antiquities, vol. i. p. 243, writes, that 'as the walls of the castles ran winding round them, they often called them by a name which signified *serpents* or *dragons*; and in these were commonly secured the women and young maids of distinction, who were seldom safe at a time when so many bold warriors were rambling up and down in search of adventures. It was this custom which gave occasion to ancient romancers, who knew not how to describe any thing simply, to invent so many fables concerning princesses of great beauty, guarded by dragons.'

"The Italian romances of the 14th century were spread abroad in great numbers. They formed the polite literature of the day. But if it is not permitted to authors freely to express their ideas, and give full play to the imagination, these works must never be placed in the study of the rigid moralist. They indeed pushed their indelicacy to the verge of grossness, and seemed rather to seek than to avoid scenes which a modern would blush to describe. They (to employ the expression of one of their authors) were not ashamed to name what God had created. Cinthio, Bandello, and others, but chiefly Boccacio, rendered libertinism agreeable, by the fascinating charms of a polished style, and a luxuriant imagination.

"This however must not be admitted as an apology for immoral works; for poison is still poison, even when it is delicious. Such works were, and still continue to be, the favourites of a nation which is stigmatised from being prone to illicit pleasures and impure amours. They are still curious in their editions, and are not parsimonious in their price for what they call an uncastrated copy. There are many Italians, not literary men, who are in possession of an ample library of the old novelists.

"If we pass over the moral irregularities of these romances, we may discover a rich vein of invention, which only requires to be released from that rubbish which disfigures it to become of an invaluable price. The Decamerons, the Hecatommiti, and the Novellas of these writers, made no inconsiderable figure in the little library of our Shakespeare. Chaucer is a notorious imitator and lover of them; his Knight's Tale is little more than a paraphrase of Boccacio's Tefeoide. Fontaine has caught all their charms with all their licentiousness. From such works, these great poets, and many of their contemporaries, frequently borrowed their plots; not uncommonly kindled at their flame the ardour of their genius; but bending too submissively to their own peculiar taste, or that of their age, in extracting the ore, they have not purified it of their alloy.

"We must now turn our contemplation to the French romances of the last century. They were then carried to a point of perfection, which as romances they cannot exceed. To this the Astrea of D'Ursé greatly contributed. It was followed by the Illustrious Bassa, the Great Cyrus, Clelia, &c. which, though not adapted to the present age, gave celebrity to their authors. Their style, as well as that of the Astrea, is diffuse and insipid. Zaide (attributed by some to Segrais, but by Huet

Huet to Madame La Fayette) and the princess of Cleves are translated, and though they are masterpieces of the kind, were never popular in our country, and are little adapted to its genius.

"It is not surprising that romances have been regarded as pernicious to good sense, morals, taste and literature. It was in this light they were considered by Boileau; because a few had succeeded, a crowd imitated their examples. Gomberville and Scudery, and a few more were admired; but the satirist dissolved the illusion. This he did most effectually by a dialogue, in which he ridicules those citizens of a certain district, whose characters were concealed in these romances, under the names of Brutus, Horace Coeles, Lucretius, and Clelia. This dialogue he only read to his friends, and did not give it for a long time to the public, as he esteemed Mademoiselle de Scudery: but when at length it was published, it united all the romance writers against our satirist.

"From romances, which had now exhausted the patience of the public, sprung novels. They attempted to allure attention by this inviting title, and reducing their works from ten to two volumes. The name of romance disgusted; and they substituted those of histories, lives, memoirs, and adventures. In these works (observes Irail) they quitted the unnatural incidents, the heroic projects, the complicated and endless intrigues, and the exertion of noble passions; heroes were not now taken from the throne, they were sought for even amongst the lowest ranks of the people. On this subject, I shall just observe, that a novel is a very dangerous poison in the hand of a libertine; it may be a salutary medicine in that of a virtuous writer." See NOVEL.

ROMAGNA, a province of Italy, in the pope's territories, bounded on the north by the Ferrarese, on the south by Tuscany and the duchy of Urbino, on the east by the gulf of Venice, and on the west by the Bolognese and a part of Tuscany. It is fertile in corn, wine, oil, fine fruits, and pastures. It has also mines, mineral waters, and salt-works, which make its principal revenue. Ravenna is the capital town.

ROMANIA, a province of Turkey in Europe, bounded on the north by Bulgaria, on the east by the Black sea, on the south by the Archipelago and the sea of Marmora, and on the west by Macedonia and Bulgaria; being 200 miles in length and 150 in breadth. It was formerly called *Thrace*, and is the principal and largest of all the provinces the Turks possess in Europe. It is a fruitful country in corn and pastures, and there are mines of silver, lead, and alum. It is divided into three great governments or sangiacates; namely. Kirkel, of which Philipoli is the capital; Galipoli, whose capital is of the same name; and Byzantium, or Byzia, or Viza, of which Constantinople is the capital. The Turks bestow the name of *Romelia* on all the territories they possess in Europe.

ROMANO, GIULIO, a famous painter, was the disciple of Raphael, who had such an affection for him, that he appointed him, with John Francis Penni, his heir. His conceptions were more extraordinary and more elevated than even those of his master, but not so natural. He was wonderful in the choice of attitudes; but did not perfectly understand the lights and shades, and is frequently harsh and ungraceful. The folds of his draperies, says Du Fresnoy, are neither beautiful nor great, easy nor natural, but all extravagant, like the fantastical habits of comedians. He was, however, superior to most painters, by his profound knowledge of antiquity; and, by conversing with the works of the most excellent poets, particularly Homer he made himself master of the qualifications necessarily required in a great designer. Julio Romano was also well skilled in architecture. He was employed by Cardinal de Medicis, who was afterwards pope under the name of *Clement* VII.; and afterwards went to Mantua, whither he was invited by Frederick Gonzago marquis of that city, in order to avoid his being justly punished for his having drawn at Rome the designs of 20 obscene plates, engraved by Mark Anthony, to which Aretine added the same number of sonnets. Julio Romano embellished the city of Mantua with many of his performances both in painting and architecture; and died in that city in 1545, at 45 years of age, much regretted by the marquis, who had an extraordinary friendship for him.

ROME, a very ancient and celebrated city of Italy, situated on the river Tiber, in E. Long. 13°. N. Lat. 41. 45. once the capital of the greatest empire in the world; and famous in modern history for being the centre of an ecclesiastical tyranny, by which for many ages the greatest part of the world was held in subjection.

1 Romans descended from Æneas.

The ancient Romans derived their origin from Æneas the Trojan hero; and though some historians pretend to treat his voyage into Italy as a mere fable, yet no sufficient reasons for rejecting this account have been offered, nor has any more probable history of the origin of the Roman name been given; so that, without entering into the dispute, we shall proceed to the history of Æneas and his successors as they are recorded by the generality of Latin writers.

2 Æneas flies from Troy to Mount Ida.

When the Greeks, by the treachery of the sons of Antenor, or by whatever other means it happened, were become masters of Troy, Æneas with the forces under his command retired into the fortress of the city, and defended it bravely for some time; but yielding at length to necessity, he conveyed away his gods, his father, wife, and children, with every thing he had that was valuable, and, followed by a numerous crowd of Trojans, fled to the strong places of Mount Ida. Hither all those of his countrymen, who were more anxious than the rest to preserve their liberty, flocked to him from the several towns of Troas. His army thus augmented and advantageously posted, he continued quiet, waiting for the departure of the Greeks, who it was imagined, would return home as soon as they had pillaged the country. But these, after they had enriched themselves with the spoils of Troy and of the neighbouring towns, turned their arms against the fugitives, resolving to attack them in their strong-holds upon the mountain. Æneas, to avoid the hazard of being forced in his last refuge, had recourse to negociation; and, by his heralds, intreated the enemy not to constrain him to a battle. Peace was granted him, on condition that he with his followers quitted the Trojan territories; and the Greeks, on their part, promised

3 Makes peace with the Greeks, and leaves his country.

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sed not to molest him in his retreat, but to let him safely pass through any country within the extent of their domination.

Upon this assurance Æneas equipped a fleet, in order to seek a settlement in some foreign land. We are told, that at his departure he left his eldest son Ascanius with the Dasylites, a people of Bithynia, who desired to have him for their king; but that the young prince did not remain long with them: for when Scamandrius (Astyanax), with the rest of the Hectoridæ whom Neoptolemus permitted to return home from Greece, repaired to him, he put himself at their head, and led them back to their native country.

The Trojan, having crossed the Hellespont, arrived in the peninsula of Pallene, where he built a city, called from him *Æneia*, and left in it a part of that multitude which had followed him. From thence he sailed to Delos; and thence to Cythera, where he erected a temple to Venus. He built another to the same goddess in Zacynthus, in which island he likewise instituted games, called the *races of Æneas and Venus*: the statues of both, says Dionysius, are standing to this day. In Leucas, where the Trojans landed, was to be seen, in the same author's time, a temple erected to Venus the mother of Æneas. Nor were Actium and Ambracia without monuments that testified his arrival in those places. At Dodona were found brazen vases, upon which the name of the Trojan hero, who had made an offering of them to Jupiter, was engraven in old characters. Not far from Buthrotos, in Epirus, a Trojan camp which had escaped the injuries of time, retained the name of *Troja*. All these antiquities, still subsisting in the reign of Augustus, were then looked upon as indisputable proofs of Æneas's voyage to Epirus: "and that he came into Italy (adds the same Dionysius) we have the concurrent testimony of all the Romans; the ceremonies they observe in their sacrifices and festivals bear witness to it, as also the Sibylline books, the Pythian oracles, and many other things which nobody can reasonably reject as invented merely for ornament."

The first land of Italy which Æneas made, after crossing the Ionian sea, was Cape Minerva, in Iapygia; and here he went on shore. Sailing afterwards from hence, and coasting along the south-east of Italy and the east and south sides of Sicily, he arrived with his fleet either by choice or by stress of weather at the port of Drepanum in that island. Elymus and Ægestus, who had escaped from Troy a little before him, had brought a Trojan colony to this place. Æneas augmented it by a good number of his followers, whom, pleased to have found a safe resting place after many dangers and fatiguing voyages, he willingly left behind him at their request; though certain authors pretend that he was constrained to it by the difficulty of transporting them, because some Trojan women, weary of the sea, had burnt a considerable part of his ships.

Æneas, leaving Drepanum, steered his course for Italy across the Tyrrhenian sea. To the cape where he first landed, he gave the name *Palinurus*, from one of his pilots who died there. The little island of Leucasia, not far distant, whither he sailed next, got its name in like manner from a daughter of Æneas's sister, who there ended her days. The port of Misenum, the island of Prochyta, and the promontory of Cajeta, where he successively arrived, were so called from being the burial places, the first of a noble Trojan his companion, the second of his kinswoman, and the third of his nurse. At length the Trojan prince and his chosen band finished their tedious and painful voyages on the coast of the since famous Latium. This was a small territory on the east side of the river Tiber, containing a part of the present *Campagna di Roma*: Latinus was the king of it; his capital town, Laurentum; his subjects, a people who, till his time called *Aborigines*, had from him taken the name of *Latins*. Here, far removed from their implacable enemies the Greeks, Æneas and his followers undertook to raise a second Troy: they fortified a camp near the mouth of the Tiber, gave it the name of *Troy*, and flattered themselves with the hopes of a quiet settlement, and a period to all their unhappy adventures.

4 Lands in Italy.

When Æneas arrived in Italy, Latinus was engaged in a war with the Rutuli, a neighbouring people, in which he was attended but with very indifferent success, when news was brought him that a foreign army had made a descent on his coasts, pillaged the maritime part of his dominions, and were fortifying themselves in a camp at a small distance from the sea. Hereupon he marched against them with all his forces, hoping to oblige them to reimbark and abandon his dominions, without meeting with any great resistance from a band of vagabonds, as he supposed, or pirates, come only to seek for plunder: but finding them, as he drew near, well-armed, and regularly drawn up, he thought it advisable to forbear engaging troops that appeared so well disciplined; and, instead of venturing a battle, to desire a parley. In this conference Latinus understanding who they were, and being at the same time struck with terror, and touched with compassion for those brave but unfortunate men, entered into a treaty with them, and assigned them a tract of land for a settlement, on condition that they should employ their arms and exert their valour in defence of his dominions, and look upon the Rutuli as a common enemy. This condition Æneas readily accepted; and complied with his engagement so faithfully, that Latinus came at length to repose an entire confidence in the Trojan; and in proof of it gave him Lavinia, his daughter and only child, in marriage, securing to him by that means the succession to the throne of Latium. Æneas, to testify his gratitude to Latinus, and affection for Lavinia, gave her name to the camp he had pitched; and instead of Troy called it *Lavinium*. The Trojans followed the example of their leader; and by making alliances with Latin families, became, in a short time, one and the same people with the Latins.

5 Enters into an alliance with Latinus, and marries his daughter.

In the mean time Turnus, the queen's nephew, who had been brought up in the palace under the eye of Latinus, and entertained hopes of marrying Lavinia and succeeding to the throne, seeing the princess bestowed on a stranger, and all his views defeated, went over to the Rutuli; and by stirring them up, brought on a battle between them and the Latins, in which both he and Latinus were killed. Thus Æneas, by the death of his father-in-law, and by that of a troublesome rival, came into the quiet possession of the kingdom of Latium, which he governed with great wisdom, and transmitted to his posterity.

Æneas is said to have reigned three years; during which

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which time he established the worship of the gods of his own country, and to the religion of the Latins added that of Troy. The two Palladiums, which had been the protectors of that city, became the tutelary deities of Lavinium, and, in after ages, of the whole Roman empire. The worship of Vesta was likewise introduced by Æneas; and virgins, from her called *Vestals*, were appointed to keep a fire continually burning in honour of that goddess. Jupiter, Venus, and many other deities who had been revered in Troy, became in all likelihood, known to the Latins by means of Æneas; which gave occasion to the poets of representing him under the character of a pious hero.

While Æneas was thus employed, the Rutuli, ancient enemies of the Latin name, entering into an alliance with Mezentius king of the Tyrrhenians, took the field with a design to drive out those new-comers, of whose power they began to conceive no small jealousy. Æneas marched out against them at the head of his Trojans and Latins. Hereupon a battle ensued, which lasted till night; when Æneas being pushed to the banks of the Numicus, which ran close by Lavinium, and forced into that river, was there drowned. The Trojans concealed his body; and pretending that he had vanished away on a sudden, made him pass for a deity among his credulous subjects, who accordingly erected a temple to him under the title of *Jupiter Indiges*.

6 His death.

7 Succeeded by his son Ascanius,

Upon the death of Æneas, his son Euryleon, called also *Ascanius* and *Iulus*, ascended the throne; but as the young king did not think it advisable to venture a battle in the very beginning of his reign, with a formidable enemy, who promised himself great success from the death of Æneas, he had the prudence to confine himself within the walls of Lavinium, and to try whether he could, by an honourable treaty, put an end to so dangerous a war. But the haughty Mezentius demanding of the Latins, as one of the conditions of a peace, that they should pay him yearly, by way of tribute, all the wine produced in the territory of Latium, Ascanius rejected the proposal with the utmost indignation; and having caused all the vines throughout his dominions to be consecrated to Jupiter, and by that means put it out of his power to comply with the enemy's request, he resolved to make a vigorous sally, and try whether he could, by force of arms, bring the insulting Tyrrhanian to more reasonable terms. The main body of the enemy's army was encamped at some distance from Lavinium; but Lausus, the son of Mezentius, with the flower of their youth under his command, lay entrenched at the very gates of the city. The Trojans, who had been long accustomed to make vigorous sallies, marching out in the night, attacked the post where Lausus commanded, forced his entrenchments, and obliged the troops he had with him to save themselves by flying to the main body of the army encamped on the plain; but the unexpected arrival and overthrow of their advance-guard struck them with such terror, that, instead of stopping the flight of their companions, they fled with them, in great disorder, to the neighbouring mountains. The Latins pursued them, and in their pursuit Lausus was killed: whose death so discouraged Mezentius, that he immediately sued for peace; which was granted him, upon condition, that for the future the Tiber should be the boundary between the Latin and Hetrurian territories.

8 who defeats the Rutuli.

In the mean time Lavinia, who had been left with child by Æneas, entertaining a strong jealousy of the ambition of her son-in-law, retired to the woods, and was there peaceably delivered of a son, who, from his father was named *Æneas*, and, from the place of his birth, had the surname of *Sylvius*: but as the queen's flight, who had disappeared on a sudden, raised suspicions at Lavinium prejudicial to the reputation of Ascanius, he used all possible means to remove them, caused diligent search to be made after Lavinia, calmed her fears, and prevailed upon her to return to the town with her son, whom he ever after treated as a brother. Lavinium grew every day more populous; but as it was in reality the patrimony of Lavinia, and the inheritance of her son Sylvius, Ascanius resolved to resign it to them, and build elsewhere another city for himself. This he made the place of his residence, and the capital of his new kingdom, calling it *Alba Longa*; *Alba*, from a white sow, which we are told Æneas had found in the place where it was built; and *Longa*, to distinguish it from another town of the same name in the country of the Marsi; or rather, because it extended, without having much breadth, the whole length of a lake near which it was built. It was 30 years after the building of Lavinium that Ascanius fixed his abode at Alba; and there he died, after a reign of about 38 years, 12 of which he had resided at his new settlement. He left a son called *Iulus*; so that between him and Sylvius lay the right of succession to the Latin throne; the latter being the son, and the former the grandson, of Æneas.

9 His kindness to Lavinia and her son.

10 Resigns the kingdom, and founds Alba Longa.

The Latins not thinking it their interest to continue divided, as it were, into two states, resolved to unite Alba and Lavinium into one sovereignty; and as Sylvius was born of Lavinia the daughter of Latinus, and had thereby an undoubted title to the kingdom of his grandfather, whereas the other was but the son of a stranger, the Latins bestowed the crown on Sylvius; and, to make Iulus some amends, decreed to him the sovereign power in affairs of religion; a power which thenceforth continued in his family. Sylvius was succeeded by 13 kings of the same race, who for near 400 years reigned at Alba; but we scarce know any thing of them besides their names, and the years of their respective reigns. Æneas Sylvius died, after a reign of 29 years. His son, called also *Æneas Sylvius*, governed Latium 31 years. *Latinus Sylvius*, who succeeded him, swayed the sceptre for the space of 51 years.—Alba reigned 39; Capetus, by Livy named *Atys*, 26; Capis, 28; and Capetus 13. Tiberinus, who succeeded him, engaged in a war which proved fatal to him; for in a battle which was fought on the banks of the Albula, he was forced into that river and drowned. From him the river took the name of *Tiber*, which it has borne ever since. Agrippa succeeded Tiberinus after a reign of eight years; and left the throne, which he had held 41 years, to Alladius; who reigned 19, and was succeeded by Aventinus, who left his name to the hill Aventinus, where he was interred. Procus, who succeeded him, and reigned 23 years, was the father of Numitor and Amulius; and at his death bequeathed the throne to his elder son Numitor. But Amulius, who surpassed his brother in courage and understanding, drove him from the throne; and, to secure it to himself, murdered Ægestus, Numitor's only son, and consecrated

11 Both states united.

12 Origin of the name Tiber.

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13 Adventures of Rhea Sylvia.

crated his daughter Rhea Sylvia to the worship of Vesta, by which she was obliged to perpetual virginity. But this precaution proved ineffectual; for as the Vestal was going to a neighbouring spring to fetch water for the performance of a sacrifice to Mars, she was met and ravished by a man in a military habit, like that in which the god Mars is represented. Some authors think that this counterfeit Mars was a lover come thither by her appointment; others charge Amulius himself with using this violence to his niece, not so much to gratify his lust, as to have a pretence to destroy her.—For ever after he caused her to be carefully watched, till she was delivered of two sons; and then exaggerating her crime in an assembly of the people, he prevailed upon them to sentence her to death, and to condemn the fruit of her criminal amour to be thrown into the Tiber. The sentence against Rhea was, according to some authors, changed by Amulius, at the request of his daughter Antho, into perpetual confinement, but executed against the twins; who being laid in a wooden trough, and carried to the foot of Mount Palatine, were there turned adrift on the Tiber, which at that time overflowed its banks. But the wind and stream proved both so favourable, that at the fall of the water the two infants were left safe on the strand, and were there happily found by Faustulus, the chief of the king's shepherds, and suckled by his wife Acca Laurentia, who for her disorderly life was called *Lupi*; and this probably gave rise to the fabulous miracle of their being nursed by a wolf.

14 Of Romulus and Remus.

As Faustulus was probably well acquainted with the birth of the twins, he took more than ordinary care of their education, and sent them to Gabii to be instructed there in Greek literature. As they grew up, they appeared to have something great in their mien and air which commanded respect; and the ascendant which they assumed over the other shepherds made them dreaded in the forests, where they exercised a sort of empire. A quarrel happening between the herdsmen of Amulius and those of Numitor, the two brothers took the part of the former against the latter; and some blood being shed in the fray, the adverse party, to be revenged on *Romulus* and *Remus* (for so the twins were called), on the festival of Lupercalia, surprised Remus, and carried him before Numitor, to be punished according to his deserts. But Numitor feeling himself touched in the prisoner's favour, asked him where he was born, and who were his parents. His answer immediately struck Numitor with a lively remembrance of his two grandsons; their age, which was about 18 years, agreed with the time when the two infants were exposed upon the Tiber; and there needed no more to change his anger into tenderness

In the mean time Romulus, eager to rescue his brother, and pursue those who had carried him off, was preparing to be revenged on them; but Faustulus dissuaded him from it; and on that occasion, disclosing to him his birth, awakened in his breast sentiments worthy of his extraction. He resolved, at all adventures, to attempt the delivering of his mother and grandfather from oppression. With this view he assembled the country people, over whom he had assumed a kind of sovereignty, and engaged them to come to the city on an appointed day, and enter it by different gates, provided with arms, which they were to conceal. While Romulus was thus disposing every thing for the execution of his design, Numitor made the same discovery to Remus concerning his parents, and the oppressions they groaned under; which so fired him, that he was ready to embark in any enterprise. But Numitor took care to moderate the transports of his grandson, and only desired him to acquaint his brother with what he had heard from him, and to send him to his house. Romulus soon came, and was followed by Faustulus, who took with him the trough or skiff in which the twins had been exposed, to shew it to Numitor: but, as the shepherd betrayed an air of concern and earnestness in his looks, he was stopped at the gate of the city, led before Amulius, and examined concerning his burden. It was easily known by its make and inscription, which was still legible; and therefore Faustulus owned what it was, and confessed that the twins were living; but, in order to gain time, pretended that they were feeding flocks in a remote desert. In the mean time, the usurper's death being resolved on, Remus undertook to raise the city, and Romulus to invest the king's palace. The country people came at the time appointed, and formed themselves into companies each consisting of 100 men. They had no other ensigns but bundles of hay hanging upon long poles, which the Latins at that time called *manipuli*; and hence came the name of *manipulares*, originally given to troops raised in the country. With this tumultuous army Romulus beset the avenues of the palace, forced the guard, and having killed the tyrant, after he had reigned 42 years, restored his grandfather Numitor to the throne.

15 They resolve to found a colony.

Affairs being thus settled at Alba, the two brothers, by the advice of Numitor, undertook the founding of a new colony. The king bestowed on them those lands near the Tiber where they had been brought up, supplied them with all manner of instruments for breaking up ground, with slaves, and beasts of burden, and granted full liberty to his subjects to join them. Hereupon most of the Trojans, of whom there still remained 50 families in Augustus's time, chose to follow the fortune of Romulus and Remus, as did also the inhabitants of Pallantium and Saturnia, two small towns. For the more speedy carrying on of the work, it was thought proper to divide those who were to be employed in the building of the city into two companies, one under the command of Romulus, the other of Remus; but this division, which was designed purely with a view to the public welfare, and that the two parties might work by way of emulation, gave birth to two factions, and produced a jealousy between the two brothers, which broke out when they came to choose a place for the building of their new city; for Remus was for the Aventine, and Romulus for the Palatine mount. Upon which, the matter being referred to their grandfather, he advised the contending parties to have recourse to the gods, and to put an end to the dispute by augury, to which he was himself greatly addicted. The day appointed for the ceremony being come, the brothers posted themselves each upon his hill; and it was agreed, that whoever should see the first flight, or the greatest number of vultures, should gain his cause. After the two rivals had waited some time for the appearance of a favourable omen, Romulus, before any had appeared, sent to acquaint his brother that he had seen some vultures; but Remus, having actually seen six, while his brother's messengers

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messengers were yet on their way, hastened, on their arrival, to Mount Palatine, to examine the truth of what they had told him. He had no sooner got thither, than by an unexpected good fortune twelve vultures appeared to Romulus. These he immediately showed to his brother; and, transported with joy, desired him to judge himself of the truth of what his messengers had told him. However, Remus discovered the deceit; and, being told that Romulus had not seen the twelve vultures till after he had seen six, he insisted on the time of his seeing them, and the other on the number of birds he had seen. This widened the breach between the two brothers; and, their parties being divided, while each man espoused the cause of his leader, the dispute grew so warm, that, from words they came at length to blows. The shepherd Faustulus, who was equally dear to both the brothers, endeavouring to part the combatants, was, by an unknown hand, laid dead on the spot. Some writers tell us, that Remus likewise lost his life in the fray; but the greater number place his death later, and say that he was killed by one Fabius, for having, in derision, leaped over the wall of the new city: but Livy says, the more common report was, that Remus fell by the hand of his brother.

16 Death of Remus.

17 Foundation of Rome.

Romulus, being now head of the colony, by having got the better of his brother's party in the late engagement, applied his thoughts wholly to the building of the city, which he proposed to call after his own name. He chose Mount Palatine for its situation, and performed all those ceremonies which the superstition of the Hetrurians had introduced. He first offered sacrifices to the gods, and ordered all the people to do the same: and from that time decreed, that eagles should be the auspices of his new colony. After this, great fires were kindled before their tents, and all the people leaped through the flames to purify themselves. When this ceremony was over, they dug a trench round the spot where the assemblies of the people were afterwards held, and threw into it the first-fruits of whatever they were allowed to make use of for food: every man of the colony was ordered to cast into the same trench an handful of earth, brought either from his own or some neighbouring country. The trench they called *Mundus*, that is, *the world*, and made it the centre round which the city was to be built. Then Romulus, yoking an ox and a cow to a plough, the coulter whereof was brass, marked out, by a deep furrow, the whole compass of the city. These two animals, the symbols of marriage, by which cities are peopled, were afterwards slain upon the altar. All the people followed the plough, throwing inwards the clods of earth which the ploughshare sometimes turned outwards. Wherever a gate was to be made, the plough was lifted up, and carried; and hence came the Latin word *porta*, "a gate," derived from the verb *portare*, "to carry." As Mount Palatine stood by itself, the whole was inclosed within the line made by the plough, which formed almost the figure of a square; whence, by Dionysius Halicarnassensis, it is called *Roma Quadrata*.

As to the exact year of the foundation of Rome, there is a great disagreement among historians and chronologers. Fabius Pictor, the most ancient of all the Roman writers, places it in the end of the seventh Olympiad; that is, according to the computation of Usher, in the year of the world 3256, of the flood 1600, and 748 before the Christian era. The Romans, if we may so call them, began to build, as Plutarch and others inform us, on the 21st of April; which day was then consecrated to Pales, goddess of the shepherds; whence the festival of Pales, and that of the foundation of the city, were afterwards jointly celebrated at Rome.

18 At first but a poor village.

When Rome had received the utmost perfection which its poor and rude founder could give it, it consisted of about 1000 houses, or rather huts: and was, properly speaking, a beggarly village, whereof the principal inhabitants followed the plough, being obliged to cultivate with their own hands the ungrateful soil of a barren country which they had shared among themselves. Even the walls of Romulus's palace were made of rushes, and covered with thatch. As every one had chosen his ground to build upon, without any regard to the regularity and beauty of the whole, the streets, if we may so call them, were both crooked and narrow. In short, Rome, till it was rebuilt after the burning of it by the Gauls, was rather a disorderly heap of huts, than a city built with any regularity or order.

19 Romulus elected king.

As soon as the building of the city was finished, Romulus assembled the people, and desired them to choose what kind of government they would obey. At that time monarchy was the unanimous voice of the Romans, and Romulus was elected king. Before he ascended the throne, however, he consulted the will of the gods by augury; and having received a favourable answer, it thence became an established custom to have recourse to augury before the raising any one to the dignity of king, priest, or any public employment. After this he applied himself to the establishment of good order and subordination among his subjects. He put on a habit of distinction for himself, appointed 12 lictors to attend him as guards, divided his subjects, who at this time consisted only of 33,000 men, into *curiæ*, *decuriæ*, *patricians*, *plebeians*, *patrons*, *clients*, &c. for an account of which, see these articles as they occur in the order of the alphabet. After this he formed a senate consisting of 100 persons, chosen from among the patricians; and a guard of 300 young men called *celeres*, who attended the king, and fought either on foot or on horseback as occasion required. The king's office at home was to take care of religious affairs, to be the guardian of laws and customs; to decide the weightier causes between man and man, referring those of smaller moment to the senate; to call together the senators, and assemble the people, first delivering his own opinion concerning the affair he proposed, and then ratifying by his consent what was agreed on by the majority. Abroad, and in the time of war, he was to command the army with absolute authority, and to take care of the public money. The senate were not only to be judges in matters of small importance, but to debate and resolve upon such public affairs as the king proposed and to determine them by a plurality of voices. The people were allowed to create magistrates, enact laws, and resolve upon any war which the king proposed; but in all these things the consent of the senate was necessary.

Romulus next proceeded to settle the religious affairs of his people. Many of the Trojan and Phrygian deities were added to those whom the Aborigines or Italian natives already worshipped. He chose priests, instituted festivals, and laid the foundation of a regular system

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system of religion; after which, as his colony was still thinly peopled, he opened an asylum for fugitive slaves, homicides, outlaws, and debtors. These, however, he did not at first receive within the walls, but appointed for their habitation the hill Saturnius, called afterwards *Capitolinus*, on which he erected a temple to a divinity of his own invention, whom he named the *Asylean god*, under whose protection all criminals were to live securely. But afterwards, when the city was enlarged, the asylum was inclosed within the walls, and those who dwelt in it included among the citizens of Rome.

20 Rape of the Sabine women,

When Romulus had thus settled every thing relating to his new colony, it was found that a supply of women was wanting to perpetuate its duration. This occasioned some difficulty; for the neighbouring nations refused to give their daughters in marriage to such a crew of vagabonds as had settled in Rome; wherefore Romulus at last resolved on the following expedient. By the advice of his grandfather Numitor, and with the consent of the senate, he proclaimed a solemn feast and public games in honour of the Equestrian Neptune called *Consus*. This occasioned a great concourse of people, who flocked from the adjacent parts to behold these pompous shows, together with the new city. But, in the midst of the solemnity, the Romans, rushing in with their swords drawn, seized all the young women, to the number of 683, for whom Romulus chose husbands. Among all those who were thus seized, only one married woman, named *Hersilia*, was found; and Romulus is said to have kept her for himself.

21 occasions war with the neighbouring nations.

This violence soon brought on a war with the neighbouring nations. Acron, king of Cænina, a city on the confines of Latium, having entered into a league with the inhabitants of Crustuminum and Antemnæ, invaded the Roman territories. Romulus marched against them without delay, defeated the confederate army, killed their king in single combat, decreed himself a triumph, and consecrated the spoils of Acron to Jupiter Feretrius, under the name of *Opima Spolia*. The city of Cænina was razed to the ground, and the inhabitants transplanted to Rome, where they were admitted to the privileges of citizens. The king then marched with one legion (consisting at this time of 3000 foot and 300 horse) against the Crustumini and Antemnates, both of whom he defeated in battle, and transplanted the inhabitants to Rome; which being incapable of holding such a number, Romulus took in the hill Saturnius above mentioned, on the top of which he built a citadel, committing the care of it to a noble Roman named *Tarpeius*. The citadel was surrounded on all sides with ramparts and towers, which equally commanded the city and country. From the foot of the hill Saturnius a wall was carried on quite to the Tiber, and a gate opened in it named *Carmentalis*, from Carmenta the mother of Evander, who either lived there, or had some chapel or altar erected to her.

22 Rome enlarged.

Romulus had now become so formidable to his neighbours, and had so well established his reputation for clemency, that several cities of Hetruria voluntarily submitted to him. Cœlius, an Hetrurian general, led the troops under his command to Rome, and settled on a hill near the city, which from him took the name of *Mount Cœlius*. The Sabines, however, not in the least dismayed at this increase of the Roman forces, sent a deputation to Romulus, demanding restitution of the young women who had been carried off; and, upon his refusal, marched to Rome with an army of 25,000 foot and 1000 horse, under the command of their king Titus Tatius. Romulus, having received supplies from Numitor and from Hetruria, likewise took the field, with 20,000 foot and 800 horse, with whom he seized an advantageous post, and fortified himself so strongly, that he could not be attacked. The Sabine monarch, perceiving the military skill of Romulus, began to be apprehensive of the event; but was extricated out of his difficulties by the treachery of Tarpeia, daughter to the governor of the citadel, who agreed to betray that important fortress to the enemy, on condition of being rewarded with the bracelets which the Sabines wore on their left arms. But when once they became masters of this important place, they are said to have crushed Tarpeia under the weight of their bucklers, pretending that thus they discharged their promise, as they wore their bucklers also on their left arms. The possession of the citadel enabled the Sabines to carry on the war with more success; but, at last, in a general engagement, they had the misfortune to be driven back into the citadel, whither they were pursued by the Romans, who expected to have retaken that important post; but the enemy, rolling down great stones from the top of the hill, wounded Romulus on the head, so that he was carried insensible out of the field of battle, while, in the mean time, his troops were repulsed, and pursued to the very gates of Rome. However, the king soon recovering himself, encouraged his routed troops, and drove the enemy back into the citadel. But while the two nations were thus fiercely contending, the women, for whose cause the war had been commenced, undertook the office of mediators; and having obtained leave from the senate, marched in a body to the camp of the Sabines, where they pleaded the cause of their husbands so effectually, that a treaty of union between the two nations was set on foot, and a peace was at last concluded, on the following terms. 1. That the two kings should reside and reign jointly at Rome. 2. That the city should still, from Romulus, be called *Rome*; but the inhabitants *Quirites*, a name till then peculiar to the Sabines. 3. That the two nations should become one; and that the Sabines should be made free in Rome, and enjoy all the privileges of Roman citizens. As Rome was chiefly indebted for this increase of her power and splendour to the Sabine women, honourable privileges and marks of distinction were allowed them. Every one was commanded to give way to them; in capital causes they were exempted from the jurisdiction of the ordinary judges; and their children were allowed to wear a golden ball hanging from their necks, and a particular kind of robe called *prætexta*, to distinguish them from the vulgar.

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23 Invasion of the Sabines

24 The citadel besieged.

25 Peace concluded, and the two nations united.

The two kings reigned with great harmony for the space of five years; during which time the only military exploit they accomplished was the reduction of the city of Cameria, at a small distance from Rome. Four thousand of the Camerini were transplanted to Rome, and a Roman colony sent to repeople Cameria; soon after which the Sabine king was murdered by the Lavinians, on account of his granting protection to some of his friends who had ravaged their territories. The Lavinians, fearing the resentment of Romulus, delivered up the assassins into his hands; but he sent them back unpunished,

26 Tatius murdered.

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punished, which gave occasion to suspect that he was not displeased with the death of his colleague.

Soon after the death of Tatius, Rome was afflicted with famine and pestilence, which encouraged the Camerini to revolt; but Romulus marching against them suddenly, defeated them with the loss of 6000 men. After which he attacked the Fidenates, whose city stood about five miles from Rome, took their capital, and made it a Roman colony. This drew upon him the resentment of the Veientes, a powerful nation in the neighbourhood, who claimed Fidenæ as within their jurisdiction; but their forces being defeated in two engagements, and a great number of them taken prisoners they were obliged to sue for peace. Romulus granted them a truce for 100 years, on condition that they delivered to him seven small towns on the Tiber, together with some salt-pits near the mouth of that river, and sent 50 of their chief citizens as hostages to Rome. The prisoners taken in this war were all sold for slaves.

The remaining part of the life of Romulus was spent in making laws for the good of his people; but towards the latter end of his reign, being elated with success, he began to enlarge the bounds formerly set to his prerogative, and to behave in an arbitrary manner. He paid no longer any regard to the voice of the senate, but assembled them only for form's sake to ratify his commands. The senate therefore conspired to destroy him, and accomplished their purpose while he was reviewing his troops. A violent storm of hail and thunder dispersed the army; and the senators taking this opportunity, when they were left alone with the king, instantly killed him, and conveyed his body out of sight.

27 and likewise Romulus.

Some writers tell us, that, the better to conceal the fact, they cut his body in pieces, each of them carrying away a part under his robe; after which they told the multitude, that their king was on a sudden surrounded by flame, and snatched up into heaven. This stratagem, however, did not satisfy the soldiery, and violent disturbances were about to ensue, when Julius Proculus, a senator of great distinction, having assembled the curiæ, told them that Romulus had appeared to him, and enjoined him to acquaint the people, that their king was returned to the gods from whom he originally came, but that he would continue to be propitious to them under the name of *Quirinus*; and to the truth of this story Julius swore.

Romulus reigned, according to the common computation, 37 years: but some historians reduce the length of his reign to little more than 17; it being very unlikely, as they observe, that a prince of such an active disposition should perform nothing worthy of record during a period of 20 years. Be this as it will, however, the death of Romulus was followed by an interregnum, during which the senators, to prevent anarchy and confusion, took the government into their own hands. Tatius added another hundred to that body; and these 200 senators divided themselves into decuries or tens. These decuries drew lots which should govern first; and the decury to whose lot it fell enjoyed the supreme authority for five days; yet in such a manner, that one person only of the governing decury had the ensigns of sovereignty at a time. To these another decury succeeded, each of them sitting on the throne in his turn, &c. But the people soon growing weary of such frequent change of masters, obliged the senate to resolve on the election of a king. The senate referred the election to the people, and the people to the senate, who at last undertook the task. Some difficulties, however, occurred: the Romans did not choose to be subject to a Sabine; and the Sabines, as they had been subject to Romulus after the death of Tatius, insisted that the king should be chosen out of their nation. At last it was agreed, that the king should be a Sabine, but that the Romans should make the choice.

28 His death followed by an interregnum.

29 Numa Pompilius the second king.

In consequence of this determination, the Romans elected Numa Pompilius, an austere philosopher, who had married Tatia, the daughter of Tatius the late king. After the death of his wife, he gave himself entirely up to philosophy and superstition, wandering from solitude to solitude, in search of sacred woods and fountains, which gave the people a great opinion of his sanctity. The pilosopher at first rejected the offer of the kingdom; but being at last prevailed upon, he set out for Rome, where he was received with loud acclamations, and had his election unanimously confirmed by the senate.

The reign of Numa is by no means memorable for battles or conquests He was averse to war; and made it his study to soften the manners of the Romans, rather than to exalt them to superiority over their neighbours. He dismissed the celeres, encouraged agriculture, and divided the citizens into distinct bodies of tradesmen. This last measure he took on purpose to abolish the distinction between Romans and Sabines, which had hitherto rent the city into two factions; and this effectually answered his end: for now all of each particular profession, whether Romans or Sabines, were obliged to associate together, and had each their respective courts and privileges. In this division the musicians held the first rank, because they were employed in the offices of religion. The goldsmiths, carpenters, curriers, dyers, tailors, &c. formed also distinct communities; and were allowed to make bye laws among themselves, to have their own festivals, particular sacrifices, &c.

Though Numa himself is said by Plutarch to have had pretty just notions of the Supreme Being, he nevertheless added innumerable superstitions to those he found in Rome. He divided the ministers of religion into eight classes, appointing to each their office with the greatest precision; he erected a temple to Janus, the symbol of prudence, which was to remain open in time of war, and to be shut in time of peace. Another temple was erected to *Bona Fides*; and he invented a new kind of deities called *Dii Termini*, or boundaries, which he caused to be placed on the borders of the Roman state, and of each man's particular lands.—The last reformation which Numa undertook, was that of the kalendar. Romulus had divided his year into ten months, which, according to Plutarch, had no certain or equal number of days; some consisting of 20, some of 35, &c. However, by other historians, we are informed that he allotted to March, May, Quintilis, and October, 31 days; to April, June, Sextilis, November, and December 30; making in all 304 days. But Numa being better acquainted with the celestial motions, added to these the two months of January and February. To compose these two months he added 50 days to the 304; and thus made the year answer to the course of the

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the moon. He then took six more from the months that had even days; and added one day merely out of superstition, that the year might prove fortunate; for the pagans looked upon even numbers as unlucky, but imagined odd numbers to be fortunate. However, he could make out no more than 28 for February, and therefore that month was always reckoned unlucky among the Romans. Besides this, he observed the difference between the solar and lunar year to be 11 days; and to remedy the inequality, he added an intercalary month named *Mercedinus* or *Mercedonius*, of 22 days every two years: but as he knew also that the solar year consisted of 365 days 6 hours, he ordered that every fourth year the month Mercedinus should consist of 23 days. The care of these intercalations was left to the priests, who left out or put in the intercalary day or month as they imagined it to be lucky or unlucky; and by that means created such confusion, that the festivals came in process of time to be kept at a season quite opposite to what they had been formerly.

30 Succeeded by Tullus Hostilius.

These are all the remarkable transactions of the reign of Numa, which is said to have continued 43 years; though some think that its duration could not be above 15 or 16. His death was followed by a short interregnum; after which Tullus Hostilius, the son or grandson of the famous Hersilia, was unanimously chosen king. Being of a bold and fiery temper, he did not long continue to imitate his peaceful predecessor. The Albans, indeed, soon gave him an opportunity of exercising his martial disposition. Cœlius, or, as he is called by Livy, *Cluilius*, who was at the head of the Alban republic, jealous of the growing greatness of Rome, privately commissioned some of the most indigent of his subjects to waste the Roman territory; in consequence of which, a Roman army entered the territories of Alba, engaged the robbers, killed many, and took a great number prisoners. A war soon commenced, in consequence of this, between the two nations; but when the armies came in sight of each other, their ardour cooled, neither of them seeming inclined to come to an engagement. This inaction raised a great discontent in the Alban army against Cluilius; insomuch that he came to a resolution of giving battle to the Romans next morning, or of storming their trenches if they should decline it. Next morning, however, he was found dead in his bed; after which the Alban chose in his stead one Mettus Fuffetius, a man remarkable for his hatred to the Roman name, as Cluilius had been before him. Fuffetius, however, continued in the same state of inactivity as his predecessor, until he received certain intelligence that the Veientes and Fidenates had resolved to destroy both Romans and Albans when they should be weakened by a battle. Fuffetius then resolved to come to an accommodation with the Romans; and, having obtained a conference with Tullus, both seemed equally desirous of avoiding the calamities of war. But, in order to establish the peace on the most perfect foundation, Tullus proposed that all, or at least the chief families in Alba, should remove to Rome; or, in case they were unwilling to leave their native city, that one common council should be established to govern both cities, under the direction of one of the two sovereigns. Fuffetius took aside those who attended him, to consult with them about this proposal; but they, though willing to come to an accommodation with Rome, absolutely refused to leave Alba. The only difficulty remaining, then, was to settle which city should have the superiority; and, as this could not be determined by argument, Tullus proposed to determine it by single combat betwixt himself and Fuffetius. This proposal, however, the Alban general thought proper to decline; and it was at last agreed, that three champions should be chosen out of each camp to decide the difference. This produced the famous combat between the Horatii and Curiatii, by which the sovereignty was decided in favour of Rome. See HORATII.

31 His war with the Albans.

Tullus now resolved to call the Fidenates to an account for their treacherous behaviour during the war with Alba, and therefore cited them to appear before the senate; but they, conscious of their guilt, refused to appear, and took up arms in conjunction with the Veientes. Fuffetius, in obedience to the orders of Tullus, joined him with the Alban troops; but the day before the battle, he acquainted the principal officers with his design, which was to stand neuter till fortune had declared for one side, and then to join with the conqueror. This design being approved, Fuffetius, during the engagement, retired with his forces to a neighbouring eminence. Tullus perceived his treachery; but dissembling his uneasiness, told his men that Fuffetius had possessed himself of that hill by his order, and that he was from thence to rush down upon the enemy. The Veientes, in the mean time, who had expected that Fuffetius was to join them, were dismayed, and the Romans obtained the victory. After the battle, Tullus returned privately to Rome in the night; and having consulted with the senate about the treachery of Fuffetius, returned to the camp by break of day. He then detached Horatius, who had conquered the three Curiatii, with a chosen body of horse and foot, to demolish Alba, as had been concerted at Rome. In the mean time, he commanded both the Roman and Alban troops to attend him unarmed, but gave private orders to the Romans to bring their swords concealed under their garments. When they were assembled, he laid open the treachery of Fuffetius, and ordered him to be torn in pieces by horses. His accomplices were all put to the sword; and the inhabitants of Alba carried to Rome, where they were admitted to the privileges of citizens, and some of them even admitted to the senate.

32 Alba demolished, and the inhabitants transported to Rome.

Tullus now turned his arms against Fidenæ, which he again reduced under the Roman yoke: and took Medulia, a strong city of the Latins; after which he waged a successful war with the Sabines, whose union with the Romans seems to have ceased with the time of Numa. This was the last of his martial exploits; after which we hear no more of him, but that he became extremely superstitious in his advanced years, giving ear to many foolish stories, as that it rained stones, that miraculous voices were heard from heaven, &c. and for this he appointed nine days expiatory sacrifices; whence it became a custom to appoint nine days to appease the wrath of the gods as often as men were alarmed with prodigies. As to the manner of his death authors are not agreed. Some tell us that he was killed by lightning, together with his wife, children, and his whole family; while others are of opinion that he was murdered with his wife and children by Ancus Martius who succeeded him. He died after a reign of

33 Death of Tullus, who is succeeded by Ancus Martius.

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33 years, leaving the city greatly increased, but the dominions much the same as they had been in the time of Romulus.

After a short interregnum, Ancus Martius, the grandson of Numa by his daughter Pompilia and Marcus his relation, was unanimously chosen by the people and senate. Though naturally inclined to war, he began his reign with attempting to restore the ceremonies of Numa, which had been neglected under Tullus Hostilius. He endeavoured also to draw the attention of his people to husbandry and the peaceful arts; advising them to lay aside all sorts of violence, and to return to their former employments. This gained him the affections of his subjects, but brought upon him the contempt of the neighbouring nations. The Latins pretending that their treaty with Rome was expired, made inroads into the Roman territories. Ancus, after using the ceremonies directed by Numa, took the field with an army consisting entirely of new-levied troops, and reduced the cities of Politorium, Tillena, and Ficana, transplanting the inhabitants to Rome. A new colony of Latins repeopled Politorium; but Ancus retook the place next year, and entirely demolished it. He then laid siege to Medulia; which, though it had been ruined by Tullus Hostilius, was now stronger than ever. It submitted after a siege of four years, when Ancus found himself obliged to undertake a second expedition against Ficana, which he had before reduced, as we have already related; and it was not without the utmost difficulty that he reduced it a second time. After this he defeated the Latins in a pitched battle; vanquished the Fidenates, Veientes, and Sabines; and having taken in the hill Janiculum to be included within the walls, and built the port of Ostia, he died in the 24th year of his reign.

34 His warlike exploits and death.

Ancus Martius left two sons behind him, one an infant, and the other about 15 years of age. Both of these he put under the tuition of Tarquin, the son of a rich merchant in Corinth, who had fled from that city to secure his wealth from Cypselus tyrant of the place. He settled in Tarquinii, one of the principal cities in Hetruria; but finding that he could not there attain to any of the principal posts in the city on account of his foreign extraction, he removed to Rome, where he had been gradually raised to the rank of patrician and senator. The death of Ancus Martius gave him an opportunity of assuming the regal dignity, and setting aside his pupils; and in the beginning of his reign he took care to strengthen his party in the senate by adding another hundred to that body. These were called *senatores minorum gentium*, because they were chosen out of the plebeians; however, they had the same authority in the senate as the others, and their children were called *patricians*.

35 His sons supplanted by Tarquin I.

Tarquin was not inferior to any of his predecessors either in his inclination or abilities to carry on a war. As soon as he ascended the throne, he recommenced hostilities with the Latins; from whom he took the cities of Apiolæ, Crustuminum, Nomentum, and Collatia. The inhabitants of Apiolæ were sold for slaves; but those of Crustuminum and Nomentum, who had submitted after their revolt, were treated with great clemency. The inhabitants of Collatia were disarmed and obliged to pay a large sum of money; the sovereignty of it, in the mean time, being given to Egerius the son of Arunx, Tarquin's brother; from whence he took the name of *Collatinus*, which he transmitted to his posterity. Corniculum, another city of Latium, was taken by storm, and reduced to ashes. This progress having greatly alarmed the Latins, several of them joined their forces in order to oppose such a formidable enemy; but being defeated in a bloody battle near Fidenæ, they were obliged to enter into an alliance with Rome; upon which the Latins having held a national conference, entered into a league with the Hetrurians, and again took the field with a very numerous army. But Tarquin, having defeated the confederate armies in two very bloody battles, obliged the Latin cities to submit to a kind of dependence on Rome; and having entered the city in triumph, built the circus maximus with the spoils which he had taken from the enemy.

36 Tarquin's success in war.

The war with the Latins was scarcely ended, when another commenced with Hetruria. This was accounted the most powerful nation in Italy, and was at that time divided into 12 tribes or lucumonies. These appointed a national assembly, in which was decreed that the whole force of Hetruria should be employed against Tarquin; and if any city presumed only to stand neuter, it should be for ever cut off from the national alliance. Thus a great army was raised, with which they ravaged the Roman territory, and took Fidenæ by the treachery of some of its inhabitants. Tarquin, not being in a condition to oppose them at first, was obliged to submit to the loss occasioned by their ravages for a whole year; after which he took the field with all the forces he could raise. The Roman army was divided into two bodies, one under the king himself, the other commanded by his nephew Collatinus. The latter, having divided his forces in order to plunder the country, was defeated; but Tarquin, in two engagements vanquished the army which opposed him. He then marched against Fidenæ, where he gained a third battle; after which he took the city. Such of the citizens as were suspected to have been concerned in betraying it to the enemy were whipped to death; the rest were sent into banishment, and their lands divided by lot among the Roman soldiers. Tarquin now hastened to oppose the new army of the Hetrurians before their forces could be properly collected; and having come up with them at Eretum, a place about 10 miles from Rome, defeated them with great slaughter, for which victory he was decreed a triumph by the senate; while the enemy, disheartened by so many misfortunes, were glad to sue for peace; which Tarquin readily granted, upon the sole condition of their owning his superiority over them. In compliance with this, the Hetrurians sent him all the ensigns of royalty which were in use among them, viz. a crown of gold, a throne of ivory, a sceptre with an eagle on the top of it, a tunic embroidered with gold, and adorned with figures of palm branches, together with a purple robe enriched with flowers of several colours. Tarquin, however, would not wear these magnificent ornaments till such time as the senate and people had consented to it by an express law. He then applied the regalia to the decoration of his triumph, and never afterwards laid them aside. In this triumph he appeared in a gilt chariot, drawn by four horses, clothed in a purple robe, and a tunic embroidered with gold, a crown on his head, and a sceptre in

37 Ensigns of royalty sent him by the Hetrurians.

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in his hand, attended by 12 lictors with their axes and fasces.

Tarquin, having now obtained some respite from war, applied himself to the beautifying and ornamenting the city. He built the walls of Rome with hewn stone, and erected those famous common sewers which have deservedly been accounted one of the wonders of the world. Rome at this time contained four hills within its compass, viz. the Palatinus, Tarpeius, Quirinalis, and Cœlius. In the valleys between these hills, the rain-water and springs uniting, formed great pools which laid under water the streets and public places. The mud likewise made the way impassable, infected the air, and rendered the city unhealthy. Tarquin undertook to free the city from this nuisance, by conveying off these waters by subterraneous channels into the Tiber. In doing this, it was necessary to cut through hills and rocks a channel large enough for a navigable stream, and covered with arches strong enough to bear the weight of houses, which were frequently built upon them, and stood as firm as on the most solid foundations. All these arches were made of hard stone, and neither trouble nor expence were spared to make the work durable. Their height and breadth were so considerable, that a cart loaded with hay could easily pass through them under ground. The expence of constructing these sewers was never so thoroughly understood as when it became necessary to repair them: for then the censors gave no less than 1000 talents to the person appointed for this purpose.

38 Builds the common sewers, and ornaments the city.

Besides these great works, Tarquin adorned the forum, surrounding it with galleries in which were shops for tradesmen, and building temples in it for the youth of both sexes, and halls for the administration of public justice. He next engaged in a war with the Sabines, on pretence that they had assisted the Hetrurians. Both armies took the field, and came to an engagement on the confines of Sabinia; without any considerable advantage on either side; neither was any thing of consequence done during the whole campaign. Tarquin then considering with himself that the Roman forces were very deficient in cavalry, resolved to add some new bodies of knights to those already instituted by Romulus. But this project met with great opposition from the superstitious augurs, as the original division of horse into three bodies had been determined by auguries; and Actius Nævius, the chief of the diviners at that time, violently opposed the king's will. On this Tarquin, desirous to expose the deceit of these people, summoned Nævius before an assembly of the people, and desired him to show a specimen of his art, by telling the king if what he thought of at that time could be done or not. The augur replied, after consulting his birds, that the thing was very possible. On which Tarquin told him, that he had been thinking whether it was possible to cut a flint with a razor, pulling at the same time a razor and flint from below his robe. This set the people a-laughing; but Nævius gravely desiring the king to try it, he was surprised to find that the flint yielded to the razor; and that with so much ease as to draw blood from his hand. The people testified their surprise by loud acclamations, and Tarquin himself continued to have a great veneration for augurs ever after. A statue of brass was erected to the memory of Nævius, which continued till the time of Augustus; the razor and flint were buried near it, under an altar, at which witnesses were afterwards sworn in civil causes.

39 Adventure of Nævius the augur.

This adventure, whatever was the truth of it, caused Tarquin to abandon his design of increasing the number of bodies of horse, and content himself with augmenting the number in each body. He then renewed the war with the Sabines, ravaged their country, defeated them in three pitched battles, obliged them at last to submit to him and put him in possession of their country. In the decline of life he employed himself in further decorating the city, building temples, &c. He was assassinated in his palace, in the 80th year of his age, by the sons of Ancus Martius, whom he had originally deprived of the kingdom.

40 Assassinated by the sons of Ancus Martius.

After the death of Tarquin I. his wife Tanaquil preserved the kingdom to her son-in-law Servius Tullius, by artfully giving out that the king was only stunned, and would soon recover; upon which the sons of Ancus went voluntarily into banishment. The second day after his decease, Servius Tullius heard causes from the throne in the royal robes and attended by the lictors; but as he pretended only to supply the king's place till he should recover, and thought it incumbent on him to revenge the wicked attempt upon his life, he summoned the sons of Ancus to appear before his tribunal; and on their non-appearance, caused them to be declared infamous, and their estates to be confiscated. After he had thus managed matters for some time in such a manner as to engage the affections of the people, the death of Tarquin was published as a thing that had newly happened, and Servius Tullius assumed the ensigns of royalty, having none to dispute the honour with him.

41 Servius Tullius succeeds.

The new king showed himself every way worthy of the throne. No sooner were the Hetrurians informed of Tarquin's death, than they shook off the yoke: but Servius quickly reduced them to obedience, depriving them of their lands, which he shared among the poor Roman citizens who had none. For this he was decreed a triumph by the people, in spite of the opposition of the senate, who could never be brought to approve of his election to the kingdom, though he was soon after legally chosen by the tribes.

After Servius had obtained the sanction of the popular voice, he marched a second time against the revolted Hetrurians: and having again vanquished them, was decreed another triumph. He then applied himself to the enlarging and adorning the city. To the hills Palatinus, Tarpeius, Quirinalis, Cœlius, and Aventinus, he added the Esquilinus and Viminalis, fixing his own palace on the Esquilinus, in order to draw inhabitants thither. He likewise added a fourth tribe, which he called *Tribus Esquilina*, to those instituted by Romulus. He divided also the whole Roman territory into distinct tribes, commanding that there should be at least one place of refuge in each tribe situated on a rising ground, and strong enough to secure the effects of the peasants in case of a sudden alarm. These strongholds he called *pagi*, that is, "villages;" and commanded that each of them should have their peculiar temple, tutelary god, and magistrates. Each of them had likewise their peculiar festival, called *paganalia*; when every person was to pay into the hands of those who presided at the sacrifices a piece of money, the

42 Enlarges the city, and adds a fourth tribe to those already instituted.

the men of one kind, the women of another, and the children of a third. By this means an exact computation was made of the men, women, and children, in each tribe.

In the mean time, his two wards, Lucius Tarquinius and Arunx, the grandchildren of Tarquin, being grown up, in order to secure their fidelity, he married them to his two daughters. And though the elder of these daughters, who was of a mild and tractable disposition, resembled in character the younger of his pupils, as the elder of his pupils did the younger of his daughters, who was of a violent and vicious temper, yet he thought it advisable to give his elder daughter to Tarquin, and the younger to Arunx; for by that means he matched them according to their ages, and at the same time hoped that the elder Tullia's sweet disposition would temper Tarquin's impetuosity, and the younger Tullia's vivacity rouse the indolence of Arunx.

During the public rejoicing for this double marriage, the twelve lucumonies of Hetruria, uniting their forces, attempted to shake off the Roman yoke; but were in several battles defeated by Servius, and obliged to submit to him on the same conditions on which they had submitted to his predecessor. For this success Servius was honoured with a third triumph.

43 Reforms the state.

The king being thus disengaged from a troublesome war, returned to the pursuit of his political schemes; and put in execution that masterpiece of policy which Rome made use of ever after, and which established a perpetual order and regularity in all the members of the state, with respect to wars, to the public revenues, and the suffrages of the comitia. The public supplies had hitherto been raised upon the people at so much a head, without any distinction of rich and poor; whence it likewise followed, that when levies were made for the war, the rich and poor were equally obliged to take the field according to the order of their tribe; and as they all served at their own expence, the poorer sort could hardly bear the charges of a campaign. Besides, as the most indigent of the people saw themselves burdened with the same taxes as the rich, they pretended to an equal authority in the comitia: so that the election of kings and magistrates, the making of peace or war, and the judging of criminals, were given up into the hands of a populace who were easily corrupted, and had nothing to lose. Servius formed a project to remedy these evils, and put it in execution, by enacting a law, enjoining all the Roman citizens to bring in an account in writing of their own names and ages, and of those of their fathers, wives, and children. By the same law, all heads of families were commanded to deliver in upon oath a just estimate of their effects, and to add to it the places of their abode, whether in town or country. Whoever did not bring in an account of his effects, was to be deprived of his estate, to be beat with rods, and publicly sold for a slave. Servius, from these particular accounts, which might be pretty well relied on, undertook to ease the poor by burdening the rich, and at the same time to please the latter by increasing their power.

44 His division of the people into classes.

To this end he divided the Roman people into six classes: the first class consisted of those whose estates and effects amounted to the value of 10,000 drachmæ, or 100,000 ases of brass; the first way of computing being used by the Greeks, and the latter by the Latins. This class was subdivided into 80 centuries, or companies of foot. To these Servius joined 18 centuries of Roman knights, who fought on horseback; and appointed this considerable body of horsemen to be at the head of the first class, because the estates of these knights, without all doubt, exceeded the sum necessary to be admitted into it. However, the public supplied them with horses; for which a tax was laid upon widows, who were exempt from all other tributes. This first class, including infantry and cavalry, consisted of 98 centuries. The second class comprehended those whose estates were valued at 7500 drachmæ, or 75,000 ases of brass. It was subdivided into 20 centuries, all foot. To these were added two centuries of carpenters, smiths, and other artificers. In the third class were those who were esteemed worth 5000 drachmæ, or 50,000 ases. This class was subdivided into 20 centuries. The fourth class was of those whose effects were rated at the value of 2500 drachmæ, or 25,000 ases, and was divided into 20 centuries; to which were added two other centuries of trumpets and blowers of the horn, who supplied the whole army with this martial music. The fifth class included those only whose whole substance did not amount to more than 1250 drachmæ, or 12,500 ases; and this class was divided into 30 centuries. The sixth class comprehended all those who were not worth so much as those of the fifth class: they exceeded in number any other class, but nevertheless were reckoned but as one century.

The king drew from these regulations all the advantages he had expected. Levies for the army were no longer raised by tribes, nor were taxes laid at so much a-head as formerly, but all was levied by centuries. When, for instance, an army of 20,000 men, or a large supply of money, was wanted for the war, each century furnished its quota both of men and money: so that the first class, which contained more centuries, though fewer men, than all the others together, furnished more men and more money for the public service than the whole Roman state besides. And by this means the Roman armies consisted for the most part of the rich citizens of Rome; who, as they had lands and effects to defend, fought with more resolution, while their riches enabled them to bear the expence of a campaign. As it was but just the king should make the first class amends for the weight laid on it, he gave it almost the whole authority in public affairs; changing the comitia by curiæ, in which every man gave his vote, into comitia by centuries, in which the majority was not reckoned by single persons, but by centuries, how few soever there might be in a century. Hence the first class, which contained more centuries than the other five taken together, had every thing at its disposal. The votes of this class were first taken; and if the 98 centuries happened to agree, or only 97 of them, the affair was determined; because these made the majority of the 193 centuries which composed the six classes. If they disagreed, then the second, the third, and the other classes in their order, were called to vote, though there was very seldom any occasion to go so low as the fourth class for a majority of votes; so that by this good order Servius brought the affairs of the state to be determined by the judgment of the most considerable

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considerable citizens, who understood the public interest much better than the blind multitude, liable to be imposed upon, and easily corrupted.

45 The census and lustrum.

And now the people being thus divided into several orders, according to the census or valuation of their estates, Servius resolved to solemnize this prudent regulation by some public act of religion, that it might be the more respected and the more lasting. Accordingly, all the citizens were commanded to appear, on a day appointed, in the Campus Martius, which was a large plain, lying between the city and the Tiber, formerly consecrated by Romulus to the god Mars. Here the centuries being drawn up in battalia, a solemn lustration or expiatory sacrifice was performed in the name of all the people. The sacrifice consisted of a sow, a sheep, and a bull, whence it took the name of *suovetaurilia*. The whole ceremony was called *lustrum, à luendo;* that is, from paying, expiating, clearing, or perhaps from the goddess Lua, who presided over expiations, and to whom Servius had dedicated a temple. This wise king considering, that in the space of five years there might be such alterations in the fortunes of private persons as to entitle some to be raised to a higher class, and reduce others to a lower, enjoined that the census should be renewed every five years. As the census was usually closed by the lustrum, the Romans henceforth began to compute time by lustrums, each lustrum containing the space of five years. However, the lustrums were not always regularly observed, but often put off, though the census had been made in the fifth year. Some writers are of opinion, that Servius at this time coined the first money that had ever appeared at Rome; and add, that the circumstances of the lustrum probably led him to stamp the figures of the animals there slain on pieces of brass of a certain weight.

46 The freedmen.

The government of the city being thus established in so regular a manner, Servius, touched with compassion for those whom the misfortunes of an unsuccessful war had reduced to slavery, thought that such of them as had by long and faithful services deserved and obtained their freedom, were much more worthy of being made Roman citizens, than untractable vagabonds from foreign countries, who were admitted without distinction. He therefore gave the freedmen their choice, either to return to their own country, or continue at Rome. Those who chose to continue there, he divided into four tribes, and settled them within the city; and though they were distinguished from the plebeians by their old name of *liberti*, or *freedmen*, yet they enjoyed all the privileges of free citizens. The senate took offence at the regard which the king showed to such mean people, who had but lately shaken off their fetters; but Servius, by a most humane and judicious discourse, entirely appeased the fathers, who passed his institution into a law, which subsisted ever after.

47 Reforms the royal power.

The wise king, having thus established order among the people, undertook at last to reform the royal power itself; his equity, which was the main spring of all his resolutions, leading him to act contrary to his own interest, and to sacrifice one half of the royal authority to the public good. His predecessors had reserved to themselves the cognizance of all causes both public and private; but Servius, finding the duties of his office too much for one man to discharge well, committed the cognizance of ordinary suits to the senate, and reserved that only of state-crimes to himself.

48 Endeavours to attach the Sabines and Latins to the Romans.

All things being now regulated at home, both in the city and country, Servius turned his thoughts abroad, and formed a scheme for attaching the Sabines and Latins to the Romans, by such social ties as should be strengthened by religion. He summoned the Latin and Sabine cities to send their deputies to Rome, to consult about an affair of great importance. When they were come, he proposed to them the building of a temple in honour of Diana, where the Latins and Sabines should meet once a-year, and join with the Romans in offering sacrifices to that goddess: that this festival would be followed by a council, in which all disputes between the cities should be amicably determined; that there proper measures should be taken to pursue their common interest; and, lastly, in order to draw the common people thither, a fair should be kept, at which every one might furnish himself with what he wanted. The king's design met with no opposition: the deputies only added to it, that the temple should be an inviolable asylum for the united nations; and that all the cities should contribute towards the expence of building it. It being left to the king to choose a proper place for it, he pitched upon the Aventine hill, where the temple was built, and assemblies annually held in it. The laws which were to be observed in these general meetings, were engraved on a pillar of brass, and were to be seen in Augustus's time, in the Latin tongue, but in Greek characters.

49 Wicked intrigues of his daughter and son-in-law.

But now Servius was grown old; and the ambition of Tarquin his son-in-law revived in proportion as the king advanced in years. His wife used her utmost endeavours to check the rashness and fury of her husband, and to divert him from all criminal enterprises; while her younger sister was ever instigating Arunx, who placed all his happiness in a private life, to the most villanous attempts. She was continually lamenting her fate in being tied to such an indolent husband, and wishing she had either continued unmarried, or were become a widow. Similitude of temper and manners, formed, by degrees, a great intimacy between her and Tarquin. At length she proposed nothing less to him than the murdering of her father, sister, and husband, that they two might meet and ascend the throne together. Soon after, they paved their way to an incestuous marriage, he by poisoning his wife, and she her husband; and then had the assurance to ask the king's and queen's consent to their marriage. Servius and Tarquinia, though they did not give it, were silent, through too much indulgence to a daughter in whom now was their only hope of posterity. But these criminal nuptials were only the first step towards a yet greater iniquity. The wicked ambition of the new married couple first showed itself against the king: for they publicly declared, that the crown belonged to them; that Servius was an usurper, who, being appointed tutor to Tarquin's grandchildren, had deprived his pupils of their inheritance; that it was high time for an old man, who was but little able to support the weight of public affairs, to give place to a prince who was of a mature age, &c.

The patricians, whom Servius had taken great pleasure in humbling during the whole time of his reign, were easily gained over to Tarquin's party; and, by the help

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help of money, many of the poorer citizens were also brought over to his interest. The king, being informed of their treasonable practices, endeavoured to dissuade his daughter and son-in-law from such proceedings, which might end in their ruin; and exhorted them to wait for the kingdom till his death. But they, despising his counsels and paternal admonitions, resolved to lay their claim before the senate; which Servius was obliged to summon: so that the affair came to a formal process. Tarquin reproached his father-in-law with having ascended the throne without a previous interregnum; and with having bought the votes of the people, and despised the suffrages of the senate. He then urged his own right of inheritance to the crown, and injustice of Servius, who, being only his guardian, had kept possession of it, when he himself was of an age to govern. Servius answered, that he had been lawfully elected by the people; and that, if there could be a hereditary right to the kingdom, the sons of Ancus had a much better one than the grandsons of the late king, who must himself have been an usurper. He then referred the whole to an assembly of the people; which being immediately proclaimed all over the city, the forum was soon filled; and Servius harangued the multitude in such a manner as gained all their affections. They all cried out with one voice, *Let Servius reign; let him continue to make the Romans happy.* Amidst their confused clamours, these words were likewise heard: *Let Tarquin perish; let him die; let us kill him.* This language frightened him so, that he retired to his house in great haste; while the king was conducted back to his palace with the acclamations of the people.

The ill success of this attempt cooled Tarquin's ardent desire of reigning; but his ambition made him act a new part. He undertook to regain the favour of his father-in-law by caresses, submissions, and protestations of a sincere regard and affection for him; insomuch that the king, who judged of the policy of others from his own, was sincerely reconciled to him, and tranquillity re-established in the royal family. But it was not long ere Tarquin, roused by the continual reproaches of his wife, began to renew his intrigues among the senators; of whom he had no sooner gained a considerable party, than he clothed himself in the royal robes, and causing the fasces to be carried before him by some of his domestics, crossed the Roman forum, entered the temple where the senate used to meet, and seated himself on the throne. Such of the senators as were in the faction he found already in their places (for he had given them private notice to be there early); and the rest, being summoned to assemble in Tarquin's name, made what haste they could to the appointed place, thinking that Servius was dead, since Tarquin assumed the title and functions of king. When they were all assembled, Tarquin made a long speech, reviling his father-in-law, and repeating the invectives against him, which he had so often uttered, calling him a slave, an usurper, a favourer of the populace, and an enemy to the senate and patricians. When he was yet speaking, Servius arrived; and, rashly giving way to the motions of his courage, without considering his strength, drew near the throne, to pull Tarquin down from it. This raised a great noise in the assembly, which drew the people into the temple; but nobody ventured to part the two rivals. Tarquin, therefore, being more strong and vigorous seized the old man by the waist, and hurrying him through the temple, threw him down from the top of the steps into the forum. The king, who was grievously wounded, raised himself up with some difficulty: but all his friends had abandoned him; only two or three of the people, touched with compassion, lent him their arms to conduct him to his palace.

As they were leading him on slowly, the cruel Tullia appeared in the forum, whither she had hastened in her chariot on the first report of what had passed in the senate. She found her husband on the top of the steps of the temple; and, transported with joy, was the first who saluted him king. The example was immediately followed by the senators of Tarquin's party. Nor was this enough for the unnatural daughter; she took aside her husband, and suggested to him, that he would never be safe so long as the usurper of his crown was alive. Hereupon Tarquin instantly dispatched some of his domestics to take away the remains of the unfortunate king's life. The orders for the wicked parricide were no sooner given than Tullia mounted her chariot again, with an air of triumph, to return home. The way to her house was through a narrow street, called *vicus cyprius*, or the *good street*. There the assassins had left the king's body, which was still panting. At this sight, the charioteer, struck with horror, checked his horses, and made a stop: but Tullia forced him to go on; and the blood of the father is said to have dyed the wheels of the chariot, and even the clothes of the inhuman daughter, whence the street was called ever after *vicus scleratus*.

50 Servius Tullius murdered.

51 Tarquin II. a cruel tyrant.

The new king proved a most despotic and cruel tyrant; receiving, in the very beginning of his reign, the surname of *proud*, on account of his capricious humour and haughty behaviour. All controversies whatever were decided by himself and his friends; and he banished, fined, and even executed, whom he pleased. The census and lustrum, the division of citizens into classes and centuries, were abolished; and all kinds of assemblies, even those for amusement and recreation, were prohibited, both in town and country. Nay, to such a height did Tarquin carry his insolence and tyranny, that the most virtuous of the senators went into voluntary banishment; while many of those who remained were cut off on various pretences, that the king might enjoy their estates.

Tarquin could not but be sensible of the extreme danger in which he stood by losing the affections of his people in such a manner. He therefore provided a sufficient number of soldiers, by way of guard, to prevent attempts upon his person; and gave his daughter to Octavius Mamilius, one of the most considerable men among the Latins, in order to strengthen his interest by this foreign alliance, in case of a revolt among his subjects. Mamilius accordingly procured many friends to his father-in-law, but he had like to have lost them again by his haughty behaviour. He had desired the Latins to call a national council at Ferentinum, where he would meet them on a day appointed by himself. The Latins accordingly met; but after waiting for several hours, Tarquin did not appear. On this, one Turnus Herdonius, an enterprising and eloquent man, who hated Tarquin, and was jealous of Mamilius, made a speech, in which he inveighed against the haughty behaviour of Tarquin, set forth the contempt which he had

had put upon the Latins, and concluded with desiring the council to break up and return home without taking any further notice of him. Mamilius, however, prevailed upon them to return the day following; when Tarquin made his appearance, and told the assembly that his design in calling them together was to claim his right of commanding the Latin armies, which he said was derived from his grandfather, but which he desired to be confirmed to him by them. These words were scarce out of his mouth, when Herdonius, rising up, entered into a detail of Tarquin's tyranny and arbitrary behaviour at Rome, which he said, the Latins would soon feel in an equal degree, if they complied with Tarquin's demand. To this speech the king made no reply at that time, but promised to answer him next day. In the mean time, however, he bribed the domestics of Herdonius to admit among his baggage a large quantity of arms: and then, telling the Latins that Herdonius's opposition proceeded only from Tarquin's having refused him his daughter in marriage, accused him of having laid a plot to cut off all the deputies there present, and to usurp a jurisdiction over the Latin cities; as a proof of which he appealed to the arms hid among the baggage of Herdonius. The accused, conscious of his innocence, desired that his baggage might be searched; which being accordingly done, and the arms found, he was hurried away without being allowed to make any defence, and thrown into a bason at the head of the spring of Ferentinum, where a hurdle being laid upon him, and stones laid upon the hurdle, he was pressed down into the water and drowned.

52 His infamous stratagem to destroy Herdonius.

In consequence of this monstrous treachery, Tarquin was looked upon by the Latins as their deliverer, and declared general of the Latin armies; soon after which, the Hernici and two tribes of the Volsci entered into an alliance with him on the same terms. In order to keep these confederates together, Tarquin, with their consent, erected a temple to Jupiter Latialis on a hill near the ruins of Alba, where he appointed certain feasts called *Feriæ Latinæ* to be held on the 27th of April, where the several nations were to sacrifice together, and on no account to commit any hostilities against each other during their continuance. The king then proceeded to make war on the rest of the Volsci who had refused to enter into an alliance with him. Some depredations which they had committed in the territories of the Latins served for a pretence to begin the war; but as Tarquin had no confidence in the Romans, his army was composed only of a small body of them who were incorporated among the Latin auxiliaries. However, he defeated the enemy, took one of their cities by storm, and gave the booty to his soldiers. He next turned his arms against the Sabines, whom he entirely defeated in two engagements, and made the whole nation tributary; for which exploits he decreed himself two triumphs, and on his return to Rome he employed the populace in finishing the sewers and circus which had been begun by his grandfather Tarquin I.

53 Institutes the Feriæ Latinæ.

In the mean time, the persecutions of Tarquin against his own subjects daily drove some of the most considerable into banishment. A great number of patricians took refuge in Gabii, a city of Latium about 13 miles from Rome; where the inhabitants, touched with compassion for their misfortunes, not only received them with kindness, but began a war with Tarquin on their account. The Gabini seem to have been the most formidable enemies whom the Romans had hitherto met with; since Tarquin was obliged to raise a prodigious bulwark to cover the city on the side of Gabii. The war lasted seven years; during which time, by the mutual devastations committed by the two armies, a great scarcity of provisions took place in Rome. The people soon grew clamorous; and Tarquin being unable either to quiet them, or to reduce the Gabini, fell upon the following dishonourable and treacherous expedient. His son Sextus Tarquinius pretended to be on very bad terms with his father, and openly inveighed against him as a tyrant; on which he was proclaimed a rebel, and publicly beaten in the forum. This being reported at Gabii, by persons sent thither on purpose, the inhabitants became very desirous of having Sextus among them; and accordingly he soon went thither, having previously obtained a solemn promise from the inhabitants never to deliver him up to his father. Here he made frequent inroads into the Roman territories, and always came back laden with spoil, his father sending against him only such weak parties as must infallibly be worsted. By this means he soon came to have such a high degree of credit among the Gabini, that he was chosen general of their army, and was as much master at Gabii as Tarquin was at Rome. Finding then that his authority was sufficiently established, he dispatched a slave to his father for instructions; but the king, unwilling to return an explicit answer, only took the messenger into the garden, where he struck off the heads of the tallest poppies. Sextus understood that by this hint the king desired him to put to death the leading men in the city of Gabii, which he immediately put in execution; and while the city was in confusion on account of this massacre, he opened the gates to his father, who took possession of the city with all the pride of a conqueror. The inhabitants dreaded every thing from the haughty tyranny of the Roman monarch: however, on this occasion he consulted his policy rather than his revenge; granted them their life, liberty, and estates, and even entered into a treaty of alliance with them. The articles were written on the hide of an ox, which was still to be seen in the time of Augustus, in the temple of Jupiter Fidius. After this, however, he made his son Sextus king of Gabii; sending off also his other two sons, Titus and Arunx, the one to build a city at Signia, the other at Circæum, a promontory of the Tyrrhene sea, and both these to keep the Volsci in awe.

54 Reduces Gabii by treachery.

For some time Tarquin now enjoyed a profound peace; the Romans, being accustomed to oppression and the yoke of an imperious master, making no opposition to his will. During this interval Tarquin met with the celebrated adventure of the Sibyl *; whose books were ever afterwards held in high estimation at Rome, and Tarquin appointed two persons of distinction to take care of them. These were called *Duumviri:* but their number was afterwards increased to 10, when they were called *Decemviri;* and then to 15, when they were termed *Quindecemviri.* At this time also the written civil law had its origin among the Romans; all the statutes enacted by the kings being collected into one body; which, from Papirius the name of

* See *Sibyl.*

55 Books of the Sibyls.

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of the collector, was called the *Papirian* law. The temple of the Capitol was also finished; for which purpose the most skilful architects and workmen were brought from Hetruria, the populace being obliged to serve them in the most laborious parts.

56 Downfal of the regal power.

We now come to the important revolution which put an end to the regal power at Rome, and introduced a new form of government, to which this city is allowed to owe the greatest part of her grandeur. Tarquin, as we have already seen, had left himself no friends among the rich citizens, by reason of the oppression under which he made them labour; and the populace were equally disaffected on account of their being obliged to labour in his public works. Among the many persons of distinction who had been sacrificed to the avarice or suspicions of Tarquin, was one M. Junius, who had married the daughter of Tarquin I. This nobleman had a son named *L. Junius Brutus*, who escaped the cruelty of the tyrant by pretending to be an idiot, which part he had ever since continued to act. Soon after the finishing of the works above-mentioned, a violent plague happening to break out at Rome, Tarquin sent his sons Titus and Arunx to consult the oracle of Delphi; and the princes took Brutus along with them, to divert themselves with his pretended folly by the way. Brutus chose for his offering to the Delphic Apollo a stick of elder, which occasioned much laughter. However, he had the precaution to inclose a rod of gold within the stick; and to this probably it was owing, that the priestess gave the princes the following riddle, that he who should first kiss his mother should succeed Tarquin in the government of Rome. This answer had been given to their inquiries concerning the succession; upon which the two brothers either drew lots which of them should kiss their mother at their return, or agreed to do it at once, that both might reign jointly: but Brutus, imagining the oracle had another meaning, fell down and kissed the earth, the common mother of all living. This, in all probability, the priestess had meant; and had given the answer on purpose to have another proof of Brutus's ingenuity, which had already discovered itself, by his offering the elder stick.

On the return of the princes to Rome, they found their father engaged in a war with the Rutuli. The treasury being exhausted by the sums which Tarquin had expended in his public works, he had marched to Ardea, the capital of that nation, which lay about 20 miles from Rome, in hopes of taking it without opposition. Contrary to his expectation, however, he was obliged to besiege it in form: and this constrained him to lay a heavy tax upon his subjects, which increased the number of malcontents, and disposed every thing for a revolt. As the siege was carried on very slowly, the general officers frequently made entertainments for one another in their quarters. One day, when Sextus Tarquinius was entertaining his brothers, the conversation happened to turn upon their wives: every one extolled the good qualities of his own; but Collatinus bestowed such extravagant praises on his Lucretia, that the dispute ended in a kind of quarrel. It was then resolved that they should mount their horses and surprise their wives by their unexpected return. The king's daughters-in-law were employed in feasting and diversion, and seemed much disconcerted by the appearance of their husbands; but Lucretia, though the night was far advanced, was found, with her maids about her, spinning and working in wool. She was not at all discomposed by the company whom her husband brought with him, and they were all pleased with the reception she gave them. As Lucretia was very beautiful, Sextus Tarquinius conceived a passion for her, which resolving to satisfy at all events, he soon returned to Collatia in the absence of Lucretia's husband, and was entertained by her with great civility and respect. In the night time he entered Lucretia's apartment, and threatened her with immediate death if she did not yield to his desires. But finding her not to be intimidated with this menace, he told her, that, if she still persisted in her refusal, he would kill one of her male slaves, and lay him naked by her when she was dead, and then declare to all the world that he had only revenged the injury of Collatinus. On this the virtuous Lucretia (who, it seems, dreaded prostitution less than the infamy attending it), submitted to the desires of Sextus; but resolved not to outlive the violence which had been offered her. She dressed herself in mourning, and took a poniard under her robe, having previously written to her husband to meet her at her father Luerctius's house, where she refused to discover the cause of her grief except in a full assembly of her friends and relations. Here, addressing herself to her husband Collatinus, she acquainted him with the whole affair; exhorted him to revenge the injury; and protested that she would not outlive the loss of her honour. Every one present gave her a solemn promise that they would revenge her quarrel: but while they endeavoured to comfort her, she suddenly stabbed herself to the heart with the dagger which she had concealed under her robe. See CHASTITY.

57 Lucretia ravished by Sextus Tarquinius, kills herself.

This extravagant action inflamed beyond measure the minds of all present. Brutus, laying aside his pretended folly, drew the bloody dagger out of Lucretia's body; and, showing it to the assembly, swore by the blood upon it that he would pursue Tarquin and his family with fire and sword: nor would he ever suffer that or any other family to reign in Rome. The same oath was taken by all the company, who were so much surprised at the apparent transition of Brutus from folly to wisdom, that they did whatever he desired them.—By his advice the gates of the city were shut, that nobody might go out of it to inform Tarquin of what was going forward; which, as Lucretius had been left governor of the city by Tarquin, was put in execution without difficulty. The corps of Lucretia was then exposed to public view: and Brutus having made a speech to the people, in which he explained the mystery of his conduct in counterfeiting folly for many years past, proceeded to tell them that the patricians were come to a resolution of deposing the tyrant, and exhorted them to concur in the same design. The people testified their approbation, and called out for arms; but Brutus did not think proper to trust them with arms till he had first obtained a decree of the senate in favour of the design. This was easily procured: the senate enacted that Tarquin had forfeited all the prerogatives belonging to the regal authority, condemned him and all his posterity to perpetual banishment, and devoted to the gods of hell every Roman who should hereafter, by word or deed, endeavour his restoration: and

58 Tarquin deposed.

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and this decree was unanimously confirmed by the curiæ.

59 The form of government changed.

Tarquin being thus deposed, the form of government became the next object. Lucretius was for the present declared *Interrex;* but Brutus being again consulted, declared, that though it was by no means proper for the state to be without supreme magistrates, yet it was equally necessary that the power should not be centered in one man, and that it should not be perpetual. For this reason, he proposed, that two magistrates, called *consuls*, should be elected annually; that the state should thenceforth have the name of *republic;* that the ensigns of royalty should be abolished; and that the only ensigns of consular dignity should be an ivory chair, a white robe, and 12 lictors for their attendants. However, that he might not utterly abolish the name of *king*, he proposed that this title should be given to him who had the superintendency of religious matters, who should thenceforth be called *rex sacrorum*, or *king of sacred things*.

The scheme of Brutus being approved of, Brutus and Collatinus were proposed by Lucretius as the two first consuls, and unanimously accepted by the people, who thought it was impossible to find more implacable enemies to the Tarquins. They entered on their office in the year 508 B. C.; and Tullia, perceiving that now all was lost, thought proper to leave the city, and retire to her husband at Ardea. She was suffered to depart without molestation, though the populace hooted at her, and cursed her as she went along. Tarquin, in the mean time, being informed by some who had gone out of Rome before the gates were shut, that Brutus was raising commotions to his prejudice, returned in haste to the city, attended only by his sons and a few friends; but finding the gates shut, and the people in arms on the walls, he returned again to the camp: but here again, to his surprise, he found that the consuls had taken the opportunity of gaining over the army to their interest; so that, being refused admittance into the camp also, he was forced to fly for refuge, at the age of 76, with his wife and three sons, to Gabii, where Sextus had been made king. Here he continued for some time: but not finding the Latins very forward to revenge his cause, he retired into Hetruria; where, being the country of his mother's family, he hoped to find more friends, and a readier assistance for attempting the recovery of his throne.

60 Tullia leaves Rome.

State of the Roman empire at this time.

The Romans now congratulated themselves on their happy deliverance from tyranny. However, as Tarquin had by his policy procured himself many friends abroad, these now became enemies to the Roman name; and, by the defection of their allies, the Roman dominions were left in much the same state as they had been in the time of Romulus. The territory of Rome had always been confined to a very narrow compass. Though almost constantly victorious in war for 243 years, they had not yet gained land enough to supply their city with provisions. The main strength of the state lay in the number of the citizens of Rome; which the custom of transplating the inhabitants of the conquered cities thither had so prodigiously increased, that it put the Romans in a condition of usurping the authority over other nations, the most inconsiderable of which had an extent of territory far exceeding theirs. By frequent depredations and incursions they so harassed the petty states of Latium and Hetruria, that many of them were constrained to enter into treaties with Rome, by which they obliged themselves to furnish her with auxiliaries whenever she should be pleased to invade and pillage the lands of her other neighbours. Submissions of this kind the Romans called *making alliances* with them, and these useful alliances supplied the want of a larger territory; but now, upon the change of her government, all the allies of Rome forsook her at once, and either stood neuter, or espoused the cause of the banished king; so that she was now obliged to maintain her liberties as she best might.

The new consuls in the mean time took the most effectual methods they could for securing the liberties of the republic. The army which had been employed in the siege of Ardea marched home under the conduct of Herminius and Horatius, who concluded a truce with the Ardeates for 15 years. The consuls then again assembled the people by centuries, and had the decree of Tarquin's banishment confirmed; a *rex sacrorum* was elected to preside at the sacrifices, and many of the laws of Servius Tullius were revived, to the great joy of the people, who were thus restored to their ancient right of voting in all important affairs. Tarquin, however, resolved not to part with his kingdom on such easy terms. Having wandered from city to city in order to move compassion, he at length made Tarquinii the seat of his residence; where he engaged the inhabitants to send an embassy to Rome, with a modest, submissive letter from himself, directed to the Roman people. The ambassadors represented in such strong terms to the senate how reasonable it was to let the king be heard before he was condemned, and the danger which threatened the state from the neighbouring powers if that common justice were refused, that the consuls inclined to bring these agents before the people, and to leave the decision thereof to the curiæ; but Valerius who had been very active in the revolution, strenuously opposed this, and by his influence in the senate got it prevented. As that illustrious body had been greatly thinned by the murders committed by Tarquin, new members were elected from among the knights, and the ancient number of 300 again completed. The old senators had been called *patres*, or "fathers;" and as the names of the new ones were now written on the same roll, the whole body received the name of *patres conscripti*.

62 Tarquin writes to the Roman people.

The old king was not to be foiled by a single attempt. He prevailed on the inhabitants of Tarquinii to send a second embassy to Rome, under pretence of demanding the estates of the exiles, but with private instructions to get the consuls assassinated. The restoration of the estates of the exiles was opposed by Brutus, but Collatinus was for complying with it; whereupon Brutus accused his colleague of treachery, and of a design to bring back the tyrant. The matter was then referred to the people, where it was carried by one vote in favour of the Tarquins. But whilst the people were employed in loading carriages with the effects of the exiles, and in selling what could not be carried off, the ambassadors found means to draw some of the nearest relations of the consuls into a plot with them. These were three young noblemen of the Aquilian family (the sons of Collatinus's sister), and two of the Vitellii (whose sister Brutus had married); and these last engaged

63 A conspiracy formed in his favour.

Rome.

gaged Titus and Tiberius, the two sons of Brutus, in the same conspiracy. They all bound themselves by solemn oaths, with the dreadful ceremony of drinking the blood of a murdered man and touching his entrails. They met at the house of the Aquilii, where they wrote letters to Tarquin and gave them to the ambassadors. But though they used all imaginable precaution, their proceedings were overheard by one Vindicius a slave, who immediately communicated the whole to Valerius: upon which all the criminals were apprehended. Brutus stood judge over his own sons; and, notwithstanding the intercession of the whole assembly, and the tears and lamentations of his children, commanded them to be beheaded; nor would he depart till he saw the execution of the sentence. Having performed this piece of heroic barbarity, he quitted the tribunal and left Collatinus to perform the rest. Collatinus, however, being inclined to spare his nephews, allowed them a day to clear themselves; and caused Vindicius, the only witness against them, to be delivered up to his masters. This roused the indignation of the people in general, especially of Valerius, who had promised to protect the witness, and therefore he refused to deliver him up to the lictors. The multitude called aloud for Brutus to return; which when he had done, he told them that he had executed his two sons in consequence of his own paternal authority over them, but that it belonged to the people to determine the fate of the rest. Accordingly, by a decree of the curiæ, all the delinquents suffered as traitors except the ambassadors, who were spared out of respect to their character. The slave Vindicius had his liberty granted him: and was presented with 25,000 ases of brass, in value about 80l. 14s. 7d. of our money. The decree for restoring the estates of the exiled Tarquins was annulled, their palaces were destroyed, and their lands divided among the indigent people. The public only retained a piece of ground, near the Campus Martius, which the king had usurped. This they consecrated to Mars, and it afterwards became a common field where the Roman youth exercised themselves in running and wrestling. But after this consecration, the superstitious Romans scrupled to use the corn which they found there ready reaped to their hands: so that, with some trees, it was thrown into the Tiber; and the water being low, it stopped in the middle of the river, and began to form a fine island named afterwards *Insula Sacra*.

64 Brutus causes two of his own sons to be beheaded.

The behaviour of Brutus towards his two sons struck such a terror into the Romans, that scarce any person durst oppose him; and therefore, as he hated Collatinus, he openly accused him before the people, and without ceremony deposed him from the consulship, banishing him at the same time from Rome. The multitude acquiesced in every thing he said, and refused to hear Collatinus speak in his own defence; so that the consul was on the point of being driven out with ignominy and disgrace, when Lucretius interposed, and prevailed upon Brutus to allow his colleague quietly to resign the fasces, and retire of his own accord from the city. Brutus then, to remove all suspicions of personal enmity, procured him a present of 20 talents out of the public treasury, to which he added five of his own. Collatinus then retired to Lavinium, where he lived in peace, and at last died of old age.

65 Deposes his colleague Collatinus.

After the abdication of Collatinus, Valerius was chosen in his room; and as his temper agreed much better with Brutus than that of Collatinus, the two consuls lived in great harmony. Nothing, however, could make the dethroned king forego the hope of recovering his kingdom by force. He first engaged the Volsci and Tarquinienses to join their forces in order to support his rights. The consuls marched out without delay to meet them. Brutus commanded the horse and Valerius the foot, drawn up in a square battalion. The two armies being in sight of each other, Brutus advanced with his cavalry, at the same time that Arunx, one of Tarquin's sons, was coming forward with the enemy's horse, the king himself followed with the legions. Arunx no sooner discovered Brutus, than he made towards him with all the fury of an enraged enemy. Brutus advanced towards him with no less speed; and as both were actuated only by motives of hatred, without thoughts of self-preservation, both of them were pierced through with their lances. The death of the two generals served as a prelude to the battle; which continued with the utmost fury till night, when it could not be known which side had got the victory, or which had lost the greatest number of men. A report was spread, however, that a voice had been heard out of a neighbouring wood, declaring the Romans conquerors; and this, probably a stratagem of Valerius, operated so powerfully on the superstitious minds of the Volsci, that they left their camp in confusion, and returned to their own country. It is said that Valerius, having caused the dead to be numbered, found, that the Volsci had lost 11,300 men, and the Romans only one short of that number.

66 The Volsci and Tarquinienses declare in favour of Tarquin.

67 Brutus and Arunx kill each other.

Valerius being left without a colleague in the consulship, and having for some reasons delayed to choose one, began to be suspected by the people of aspiring at the sovereignty; and these suspicions were in some measure countenanced by his building a fine house on the steep part of the hill Palatinus, which overlooked the forum, and was by them considered as a citadel. But of this Valerius was no sooner informed, than he caused this house to be pulled down, and immediately called an assembly of the people for the election of a consul, in which he left them entirely free. They chose Lucretius; and, being ashamed of having suspected Valerius, they complimented him with a large ground-plot in an agreeable place, where they built him a house. The new consul died a few days after his promotion, so that Valerius was once more left sole governor. In the interval betwixt the death of Lucretius and the choice of another consul, Valerius gave the people so many striking proofs of his attachment to their interest, that they bestowed upon him the surname of *Poplicola*, or "popular;" nor was he ever called by another name afterwards.

When Poplicola's year of consulship expired, the Romans thought fit, in consequence of the critical situation of affairs, to elect him a second time, and joined with him T. Lucretius, the brother of the famous Lucretia. They began with restoring the census and lustrum; and found the number of Roman citizens, at or above the age of puberty, to amount to 130,000. As they apprehended an attack from the Latins on account of Tarquin, they were at great pains to fortify Sinquirinum or Singliuria, an important post on that side

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68 Porsena invades the Roman territories,

side. Contrary to their expectations, however, the Latins remained quiet; but a haughty embassy was received from Porsena king of Clusium in Hetruria, commanding them either to take back the Tarquins to Rome, or to restore them their estates. To the first of these demands the consuls returned an absolute refusal; and, as to the second, they answered, that it was impracticable; a part of those estates having been consecrated to Mars, and the rest divided among indigent people, from whom they could not be recovered. The imminent danger which now threatened the city, procured Valerius the honour of a third consulship; and with him was joined Horatius Pulvilius, who had enjoyed the dignity for a few months before in the interval betwixt the death of Lucretius and the expiration of the first consulate.

69 and defeats their army.

While the Romans were making the most vigorous preparations for defence, Porsena, attended by his son Arunx and the exiles, marched towards the city at the head of a formidable army, which was quickly joined by a considerable body of Latins under Mamilius, the son-in-law of Tarquin. The consuls and the senate took all imaginable care to supply the common people with provisions, lest famine should induce them to open the gates to Tarquin; and they desired the country people to lodge their effects in the fort Janiculum, which overlooked the city, and which was the only fortified place possessed by the Romans on that side the Tiber. Porsena, however, soon drove the Romans out of this fort; upon which the consuls made all their troops pass the river, and drew them up in order of battle to defend the bridge, while Porsena advanced to engage them. The victory was a long time doubtful; but at last the Romans fled. Horatius Cocles, nephew to the consul, with Sp. Lartius and T. Herminius, who had commanded the right wing, posted themselves at the entrance of the bridge, and for a long time bravely defended it; but at last, the defensive arms of Lartius and Herminius being broken, they retired; and then Horatius desiring them to advise the consuls from him to cut the bridge at the other end, he for a while sustained the attack of the enemy alone. At last, being wounded in the thigh, and the signal given that the bridge was almost broken down, he leaped into the river, and swam across it through a shower of darts. The Romans, in token of gratitude for this eminent service, erected a statue to him in the temple of Vulcan, gave him as much land as he himself with one yoke of oxen could plough in one day; and each of the inhabitants, to the number of 300,000, gave him the value of as much food as each consumed in a day. But notwithstanding all this, as he had lost one eye, and from his wounds continued lame throughout the remainder of his life, these defects prevented his ever being raised to the consulate, or invested with any military command.

70 Bravery of Horatius Cocles.

The city was not yet fully invested; but as it was very difficult to find provisions for such a multitude, the inhabitants soon began to be in want. Porsena being informed of their difficulties, told them that he would supply them with provisions if they would take back their old masters; but to this they replied, that hunger was a less evil than slavery and oppression. The constancy of the Romans, however, was on the point of failing, when a young patrician, named *Mutius Cordus*, with the consent of the senate and consuls, undertook to assassinate Porsena. He got access to the Hetrurian camp, disguised like a peasant, and made his way to the king's tent. It happened to be the day on which the troops were all reviewed and paid; and Porsena's secretary, magnificently dressed, was sitting on the same tribunal with the king. Mutius, mistaking him for Porsena, instantly leaped upon the tribunal and killed him. He then attempted to make his escape; but being seized and brought back, he owned his design; and with a countenance expressive of desperate rage and disappointment, thrust his hand which had missed the blow into a pan of burning coals which stood by, and there held it for a considerable time. On this, Porsena, changing his resentment into admiration, granted him his life and liberty, and even restored him the dagger with which he intended to have stabbed himself. Mutius took it with his left hand, having lost the use of the other; and from this time had the name of *Scævola*, or "left-handed." He then, in order to induce Porsena to break up the siege, invented a story that 300 young Romans, all of them as resolute as himself, had sworn to take away the life of the king of Hetruria, or to perish in the attempt. This had the desired effect; Porsena sent deputies to Rome, whose only demands were, that the Romans should restore the estates of the Tarquins, or give them an equivalent, and give back the seven small towns which had been formerly taken from the Veientes. The latter of these demands was cheerfully complied with; but the former was still refused, until Porsena should hear the strong reasons they had to urge against it. A truce being agreed on, deputies were sent to the Hetrurian camp to plead the Roman cause against the Tarquins, and with them ten young men, and as many virgins, by way of hostages for performing the other article.

71 Attempt of Mutius Cordus to assassinate Porsena.

The reception which Porsena gave the deputies raised the jealousy of the Tarquins; who still retaining their ancient pride, refused to admit Porsena for a judge between them and the Romans. But the king, without any regard to their opposition, resolved to satisfy himself, by an exact inquiry, whether the protection he had given the Tarquins was just. But while the cause was ready to be opened before the Roman deputies, news were brought that the young women whom the Romans had sent as hostages had ventured to swim across the Tiber, and were returned to Rome. They had gone to bathe in the river, and Clælia happened to turn her eyes towards her native city, that sight raised in her a desire of returning to it. She therefore ventured to swim across the river; and having encouraged her companions to follow her, they all got safe to the opposite shore, and returned to their fathers houses. The return of the hostages gave the consul Poplicola great uneasiness; he was afraid lest this rash action might be imputed to want of fidelity in the Romans. To remove therefore all suspicions, he sent a deputation to the Hetrurian camp, assuring the king that Rome had no share in the foolish attempt of the young women; and promising to send them immediately back to the camp from whence they had fled. Porsena was easily appeased; but the news of the speedy return of the hostages being known in the camp, the Tarquins, without any regard to the truce, or respect to the king their protector, lay in ambush on the road to surprise them. Poplicola having

72 Adventure of Clælia.

73 Treachery of the Tarquins.

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put himself at the head of the Roman troops who escorted them, sustained the attack of the Tarquins, though sudden and unexpected, till his daughter Valeria rode full speed to the Hetrurian camp, and gave notice of the danger her father and companions were in; and then Arunx, the king's son, flying with a great body of cavalry to their relief, put the aggressors to the rout.

This notorious piece of treachery in the Tarquins gave Porsena strong suspicions of the badness of their cause. He therefore assembled the chief commanders of the Hetrurians; and having heard in their presence the complaints of the Romans, and the justification of their proceedings against the Tarquins, he was so struck with horror at the recital of the crimes the Tarquins were charged with, that he immediately ordered them to leave his camp; declaring that he renounced his alliance with them, and would no longer continue the hospitality he had shewn them. He then commanded the ten young virgins to be brought before him, and inquired who was the first author and chief manager of the enterprise. They all kept silence, till Clælia herself, with an air of intrepidity, confessed that she alone was guilty, and that she had encouraged the others by her advice. Upon this the king, extolling her resolution above the bravery of Horatius and the intrepidity of Mutius, made her a present of a fine horse, with sumptuous furniture. After this he concluded a peace with the Romans, and restored to them all their hostages; declaring, that their bare word was to him a sufficient security for the performance of the articles.

74 Porsena abandons their cause.

75 Concludes a peace with the Romans, and relieves them.

And now Porsena being about to return to Clusium, gave, before his departure, a further testimony of his respect and friendship for the Romans. He knew that Rome was greatly distressed for want of provisions; but being afraid to offend the inhabitants by relieving them in a direct manner, he ordered his soldiers to leave behind them their tents and provisions, and to carry nothing with them but their arms. As his camp abounded with all sorts of provisions, Rome was hereby much relieved in her wants. The moveables and corn of the Hetrurians were sold by auction to private persons; and on this occasion the Romans took up the custom of making a proclamation by a herald, whenever any effects belonging to the public were to be sold in the following words, *These are Porsena's goods.* The design of this was to preserve the memory of that prince's kindness. The senate, not satisfied with this, erected a statue of the king near the comitium, and sent an embassy to him with a present of a throne adorned with ivory, a sceptre, a crown of gold, and a triumphal robe.

Thus the Romans escaped the greatest danger they had hitherto been in. However, they did not yet enjoy tranquillity. The Sabines revolted, and continued the war for some time with great obstinacy: but being defeated in several engagements, they were at last obliged to submit; and scarce was this war ended, when another began with the Latins, who now declared for King Tarquin. Before they began this war, however, an embassy was sent to Rome, the purport of which was, that the Romans should raise the siege of Fidenæ which had revolted, and receive the Tarquins; who, on their part should grant a general amnesty. The ambassadors were to allow the Romans a whole year to consider on these overtures; and to threaten them with a war in case they refused to comply with them. The chief view of Tarquin and his partisans in promoting this embassy was, to lay hold of that opportunity to raise a sedition in the city. To the ambassadors therefore, of the Latins, he joined some of his own emissaries, who on their arrival in the city, found two sorts of people disposed to enter into their measures; to wit, the slaves, and the meaner citizens.

76 The Latins declare for Tarquin.

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77 A dangerous conspiracy against the state,

The slaves had formed a conspiracy the year before to seize the Capitol, and set fire to the city in several quarters at the same time. But the plot being discovered, those who were concerned in it had been all crucified, and this execution had highly provoked the whole body of slaves. As to the meaner citizens, who were for the most part overwhelmed with debt, and cruelly used by their creditors, they were well apprised that there could happen no change in the government but to their advantage. These were the conspirators pitched upon, and to them were given the following parts to act: the citizens were to make themselves masters of the ramparts and gates of the city, at an appointed hour of the night; and then to raise a great shout as a signal to the slaves, who had engaged to massacre their masters at the same instant; the gates of the city were then to be opened to the Tarquins, who were to enter Rome while it was yet reeking with the blood of the senators. The conspiracy was ripe for execution, when Tarquin's principal agents, Publius and Marcus, both of his own name and family, being terrified with frightful dreams, had not courage enough to proceed in their design till they had consulted a diviner. However, they did not discover to him the conspiracy; but only asked him in general terms, what success they might expect in a project they had formed? The soothsayer, without the least hesitation, returned the following answer: *Your project will end in your ruin; disburden yourselves of so heavy a load.* Hereupon the Tarquins, fearing lest some of the other conspirators should be beforehand with them in informing, went immediately to S. Sulpitius, the only consul then at Rome, and discovered the whole matter to him. The consul greatly commended them, and detained them in his house, till, by private inquiries, he was assured of the truth of their depositions. Then he assembled the senate, and gave the Latin ambassadors their audience of leave, with an answer to their proposals; which was, that the Romans would neither receive the Tarquins, nor raise the siege of Fidenæ, being all to a man ready to sacrifice their lives in defence of their liberties, and willing to undergo any dangers rather than submit to the government of a tyrant.

78 How discovered.

The ambassadors being dismissed with this answer, and conducted out of the city, Sulpitius laid open to the fathers the dreadful conspiracy. It struck them with horror: but they were all at a loss in what manner they should apprehend and punish the guilty; since, by the law of Poplicola, there was an appeal to the people in all capital cases; and the two witnesses, who were strangers, might be excepted against by Roman citizens. In this perplexity they left the whole conduct of this critical affair to Sulpitius; who took a method which he thought would equally serve to prove the guilt and punish the guilty. He engaged the two informers to assemble the conspirators, and to appoint a rendezvous at midnight in the forum, as if they designed to take the

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the last measures for the execution of the enterprise. In the mean time he used all proper means to secure the city, and ordered the Roman knights to hold themselves ready, in the houses adjoining to the forum, to execute the orders they should receive. The conspirators met at the time and place appointed by the two Tarquins; and the knights, upon a signal agreed on beforehand invested the forum, and blocked up all the avenues to it so closely, that it was impossible for any of the conspirators to make their escape. As soon as it was light, the two consuls appeared with a strong guard on the tribunal; for Sulpitius had sent to his colleague Manius, who was besieging Fidenæ, desiring him to hasten to the city with a chosen body of troops. The people were convened by curiæ, and acquainted with the conspiracy which had been formed against the common liberty. The accused were allowed to make their defence, if they had any thing to offer against the evidence; but not one of them denying the fact, the consuls repaired to the senate, where sentence of death was pronounced against the conspirators, in case the people approved it.

79 The conspirators punished.

This decree of the senate being read to and approved by the assembly, the people were ordered to retire, and the conspirators were delivered up to the soldiers, who put them all to the sword. The peace of Rome was thought sufficiently secured by this stroke of severity; and therefore, though all the conspirators were not punished with death, it was judged proper not to make any further inquiries. The two informers were rewarded with all the privileges of Roman citizens, 100,000 ases, and 20 acres of land. Three festival-days were appointed for expiations, sacrifices, and public games, by way of thanksgiving to the gods. But the general joy was disturbed by a melancholy accident; as the people were conducting Manius Tullius the consul from the circus to his house, he fell from his chariot, and died three days after.

The city of Fidenæ was not yet reduced: it held out during the following consulship of T. Æbutius and P. Veturius; but was taken the next year by T. Lartius, who, together with Q. Clœlius, was raised to the consular dignity. The Latins, enraged at the loss of this town, began to complain of their leading men; which opportunity Tarquin and Mamilius improved so far, as to make all the Latin cities, 24 in number, enter into an alliance against Rome, and to bind themselves by oath never to violate their engagements. The Latins made vast preparations, as did likewise the Romans; but the latter could procure no assistance from their neighbours. As the Latin nation was much superior to them in strength, they sent deputies to solicit succours from the several states with which they were surrounded: but their negociations proved every where unsuccessful; and, what was worse than all, the republic had rebellious sons in her own bosom, who refused to lend their aid in defence of their country. The poorer sort of people and the debtors, refused to take the military oaths, or to serve; alleging their poverty, and the fruitless hazards they ran in fighting for the defence of a city, where they were oppressed and enslaved by their creditors. This spirit of mutiny spread among the inferior classes, most of them refusing to list themselves, unless their debts were all remitted by a decree of the senate; nay, they began to talk of leaving the city, and settling elsewhere.

80 Disturbances at Rome.

The senate, apprehending a general insurrection, assembled to deliberate on the means of quieting those domestic troubles. Some were for a free remission of all debts, as the safest expedient at that juncture; others urged the dangerous consequences of such a condescension, advising them to list such only as were willing to serve, not doubting but those who refused their assistance would offer it of their own accord when it was no longer desired. Several other expedients were proposed: but at length this prevailed; to wit, that all actions for debts should be suspended till the conclusion of the war with the Latins. But this the indigent debtors thought only a suspension of their misery; and therefore it had not the intended effect on the minds of the unruly multitude. The senate might indeed have prosecuted the ringleaders of the sedition; but the law of Poplicola, called the *Valerian* law, which allowed appeals to the assembly of the people, was a protection for the seditious, who were sure of being acquitted by the accomplices of their rebellion. The senate, therefore, to elude the effect of a privilege that put such a restraint upon their power, resolved to create one supreme magistrate, who, with the title of *dictator*, should have an absolute power for a time: but as this could not be done without striking at the law of Poplicola, and transferring the power of the people in criminal cases to a magistrate superior to all laws, it was necessary to use artifice, in order to obtain the consent of the curiæ. They therefore represented to them in a public assembly, that, in so difficult a conjuncture, when they had their domestic quarrels to decide, and at the same time a powerful enemy to repulse, it would be expedient to put the commonwealth under a single governor, who, superior to the consuls themselves, should be the arbiter of the laws, and as it were the father of his country; that his power should have no limits: but, however, lest he should abuse it, they ought not to trust him with it above six months.

81 A dictator created.

The people, not foreseeing the consequences of this change, agreed to it; but the greatest difficulty was to find a man duly qualified in all respects for so great a trust. T. Lartius, one of the consuls, seemed to be of all men the most unexceptionable; but the senate, fearing to offend his colleague by an invidious preference, gave the consuls the power of choosing a dictator, and obliged them to name one of themselves, not doubting but Clœlius would yield to the superior talents of his colleague: nor were they disappointed in their expectations. But Lartius, with the same readiness, named Clœlius; and the only contest was, which of the two should raise the other to the supreme authority. Each persisted obstinately in remitting the dignity to his colleague, till Clœlius, starting up on a sudden, abdicated the consulship, and, after the manner of an interrex, proclaimed Titus Lartius dictator, who thereupon was obliged to take upon him the government of the republic.

82 He chooses a general of horse.

Lartius indeed took as much state upon him, after he had entered upon his office, as he had shown modesty in refusing it. He began by creating, without the participation either of the senate or people, a general of the Roman horse; an office which lasted only during the dictatorship, and which all subsequent dictators revived immediately after their election. Sp. Cassius, formerly consul, and honoured with a triumph, was the person he advanced

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ced to this second station in the republic. Lartius, having by this means secured the Roman knights, resolved, in the next place, to make the people respect and fear him. With this view he never appeared in public, without being attended by 24 lictors, to whose fasces he again added the axes which Poplicola had caused to be taken from them. The novelty of this sight was alone sufficient to awe the seditious, and, without executions, to spread consternation throughout Rome. The murmurs of the inferior classes being by this means silenced, the dictator commanded a census to be taken, according to the institution of King Servius. Every one, without exception, brought in his name, age, the particulars of his estate, &c. and there appeared to be in Rome 150,700 men who were past the age of puberty. Out of these the dictator formed four armies: the first he commanded himself; the second he gave to Clœlius his late colleague; the third to Sp. Cassius his general of the horse; and the fourth he left in Rome, under the command of his brother Sp. Lartius, who was to guard the city. The Latins not being so forward in their preparations as was expected, all their hostilities against Rome this campaign amounted to no more than the sending a detachment into the Roman territory to lay it waste. The dictator gained some advantage over that party; and the great humanity with which he treated the prisoners and wounded, disposed the Latins to listen the more readily to the overtures which he at the same time made them for a suspension of hostilities. At length a truce was agreed on for a year: and then Lartius, seeing the republic restored to its former tranquillity, resigned the dictatorship, though the time appointed for its duration was not yet expired.

83 Number of the Romans.

The following consulship of Sempronius Atratinus and Minutius Angurinus, produced nothing memorable. But the next year the truce expired, when Aulus Posthumius and T. Virginius took possession of the consulship. Both Romans and Latins were busied in making the necessary preparations for war. The nobility of Latium, who were for the most part in the interest of the Tarquins, having found means to exclude the citizens from the Latin diets, carried all before them in those assemblies: whereupon many of the citizens removed with their families to Rome, where they were well received. The Latins being bent upon war, the senate, notwithstanding the perfect harmony that reigned between them and the people, thought it expedient to create a dictator. The two consuls were therefore empowered to name one of themselves to that dignity; whereupon Virginius readily yielded it to his colleague Posthumius, as the more able commander. The new dictator, having created Æbutius Elva his general of the horse, and divided his army into four bodies, left one of them, under the command of Sempronius, to guard the city; and with the other three, commanded by himself, Virginius, and Æbutius, marched out against the Latins, who, with an army of 40,000 foot and 3000 horse, under the command of Sextus Tarquinius, Titus Tarquinius, and Mamilius, had already made themselves master of Corbio, a strong-hold belonging to the republic, and put the garrison to the sword. Posthumius encamped in the night on a steep hill near the lake Regillus, and Virginius on another hill over against him. Æbutius was ordered to march silently in the night, with the cavalry and light-armed infantry, to take possession of a third hill upon the road by which provisions must be brought to the Latins.

84 Battle of Regillus.

Before Æbutius had fortified his new camp, he was vigorously attacked by Lucius Tarquinius, whom he repulsed three times with great loss, the dictator having sent him a timely reinforcement. After this Æbutius intercepted two couriers sent by the Volsci to the Latin generals, and, by letters found upon them, discovered, that a considerable army of the Volsci and Hernici were to join the Latin forces in three days. Upon this intelligence. Posthumius drew his three bodies of troops together, which amounted in all to no more than 24,000 foot and 1000 horse, with a design to engage the enemy before the arrival of the succours they expected. Accordingly he encouraged his men, and, with his army in battle array, advanced to the place where the enemy was encamped. The Latins, who were much superior to the Romans in numbers, and besides began to want provisions, did not decline the engagement. Titus Tarquinius, at the head of the Roman exiles and deserters, was in the centre, Mamilius in the right wing, and Sextus Tarquinius in the left. In the Roman army the dictator commanded in the centre, Æbutius in the left wing, and Virginius in the right.

The first body which advanced was that of the dictator; and, as soon as it began to march, T. Tarquinius, singling out the dictator, ran full speed against him. The dictator did not decline the encounter, but, flying at his adversary, wounded him with a javelin in the right side. Upon this, the first line of the Latins advanced to cover their general; but he being carried out of the field, they made but a faint resistance when charged by the troops of the dictator. They were destitute of a leader; and therefore began to retire, when Sextus Tarquinius, taking the place of his brother, brought them back to the charge, and renewed the fight with such vigour, that the victory in the centre was still doubtful. On the side of Mamilius and Æbutius, both parties, encouraged by the example of their leaders, fought with incredible bravery and resolution. After a long and bloody contest, the two generals agreed to determine the doubtful victory by a single combat. Accordingly the champions pushed on their horses against each other. Æbutius with his lance wounded Mamilius in the breast; and Mamilius with his sword Æbutius in the right arm. Neither of the wounds were mortal; but, both generals falling from their horses, put an end to the combat. Marcus Valerius, the brother of Poplicola, supplying the place of Æbutius, endeavoured, at the head of the Roman horse, to break the enemy's battalions; but was repulsed by the cavalry of the Roman royalists. At the same time Mamilius appeared again in the van, with a considerable body of horse and light-armed infantry. Valerius, with the assistance of his two nephews, the sons of Poplicola, and a chosen troop of volunteers, attempted to break through the Latin battalions, in order to engage Mamilius; but being surrounded by the Roman exiles, he received a mortal wound in his side, fell from his horse, and died. The dead body was carried off by the two sons of Poplicola, in spite of the utmost efforts of the exiles, and delivered to Valerius's servants, who conveyed it to the Roman camp: but

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but the young heroes being afterwards invested on all sides, and overpowered by numbers, were both killed on the spot. Upon their death, the left wing of the Romans began to give ground, but were soon brought back by Posthumius; who, with a body of Roman knights, flying to their assistance, charged the royalists with such fury, that they were, after an obstinate resistance, obliged to give way, and retire in the utmost confusion. In the mean time Titus Horminius, one of the dictator's lieutenants, having rallied those who had fled, fell upon some close batalions of the enemy's left wing, which still kept their ground under the command of Mamilius, killed him with his own hand, and put that body to flight. But while he was busy in stripping the body of his enemy, he received himself a wound, of which he died soon after.

Sextus Tarquinius in the mean time maintained the fight with great bravery, at the head of the left wing, against the consul Virginius; and had even broke through the right wing of the Roman army, when the dictator attacked him unexpectedly with his victorious squadrons. Then Sextus, having lost at once all hopes of victory, threw himself, like one in despair, into the midst of the Roman knights, and there sunk under a multitude of wounds, after he had distinguished himself in a most eminent manner. The death of the three generals was followed by the entire defeat of the Latin army. Their camp was taken and plundered, and most of their troops cut in pieces; for of the 43,000 men who came into the field, scarce 10,000 returned home. The next morning the Volsci and Hernici came, according to their agreement, to assist the Latins; but finding, upon their arrival, how matters had gone, some of them were for falling upon the Romans before they could recover from the fatigue of the preceding day; but others thought it more safe to send ambassadors to the dictator, to congratulate him on his victory, and assure him that they had left their own country with no other design than to assist Rome in so dangerous a war. Posthumius, by producing their couriers and letters, gave them to understand that he was well apprised of their designs and treacherous proceedings. However, out of a regard to the law of nations, he sent them back unhurt, with a challenge to their generals to fight the next day; but the Volsci and their confederates, not caring to engage a victorious army, decamped in the night, and returned to their respective countries before break of day.

85 The Latins entirely defeated, and their camp taken.

86 The whole nation submits.

The Latins having now no remedy but an entire submission, sent ambassadors to solicit a peace at Rome, yielding themselves absolutely to the judgment of the senate. As Rome had long since made it a maxim to spare the nations that submitted, the motion of Titus Lartius, the late dictator, prevailed; and the ancient treaties with the Latins were renewed, on condition, however, that they should restore the prisoners they had taken, deliver up the deserters, and drive the Roman exiles out of Latium. Thus ended the last war which the Romans waged with their neighbours on account of their banished king; who, being now abandoned by the Latins, Hetrurians, and Sabines, retired into Campania, to Aristodemus tyrant of Cumæ, and there died, in the 90 year of his age and 14th of his exile.

87 Death of Tarquin.

The Romans were no sooner freed from these dangerous wars, than they began to oppress one another; and those domestic feuds took place which continued more or less during the whole time of the republic. The first disturbances were occasioned by the oppression of the plebeians who were debtors to the patricians. The senate, who were at the head of the patricians, chose to the consulate one Appius Claudius, who violently opposed the pretensions of the plebeians; but gave him for his colleague one P. Servilius, who was of a quite contrary opinion and disposition. The consequence of this was, that the consuls disagreed; the senate did not know what to determine, and the people were ready to revolt. In the midst of these disturbances, an army of the Volsci advanced towards Rome; the people refused to serve; and had not Servilius procured some troops who served out of a personal affection to himself, the city would have been in great danger.

88 New disturbance at Rome.

But though the Volsci were for this time driven back, they had no intention of dropping their designs; they engaged in an alliance with them the Hernici and Sabines. In the mean time, the disputes at Rome continued with as much violence as ever. Nay, though they were expressly told that the Volscian army was on its way to besiege the city, the plebeians absolutely refused to march against them; saying, that it was the same thing whether they were chained by their own countrymen or by the enemy. In this extremity Servilius promised, that when the enemy were repulsed the senate would remit all the debts of the plebeians. This having engaged them to serve, the consul marched out at their head, defeated the enemy in a pitched battle, and took their capital, giving it up to be plundered by his soldiers, without reserving any part for the public treasury.

Whatever might have been the reasons of Servilius for this step, it furnished Appius with a pretence for refusing him a triumph, as a man of a seditious disposition, who aimed at popularity by an excessive indulgence and profuseness to his soldiers. Servilius, incensed at this injustice, and encouraged by the acclamations of the people, decreed himself a triumph in spite of Appius and the senate. After this he marched against the Aurunci, who had entered Latium; and, in conjunction with Posthumius Regillens, he utterly defeated them, and obliged them to retire into their own country. But neither the services of the general nor his soldiers could mollify the senate and patrician party. Appius even doubled the severity of his judgments, and imprisoned all those who had been set at liberty during the war. The prisoners cried for relief to Servilius; but he could not obtain the accomplishment of those promises which the senate never had meant to perform; neither did he choose to quarrel openly with the whole patrician body; so that, striving to preserve the friendship of both parties, he incurred the hatred of the one and the contempt of the other. Perceiving therefore that he had lost all his interest with the plebeians, he joined with the patricians against them; but the plebeians rushing tumultuously into the forum, made such a noise, that no sentence pronounced by the judges could be heard, and the utmost confusion prevailed through the whole city. Several proposals were made to accommodate matters; but through the obstinacy of Appius and the majority of the senators, they all

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all came to nothing. In the mean time it was necessary to raise an army against the Sabines, who had invaded the territories of the republic; but the people refused to serve. Manius Valerius, however, brother to the celebrated Poplicola, once more prevailed upon them to march out against the common enemy; having previously obtained assurances from the senate that their grievances should be redressed. But no sooner had victory declared in favour of the Romans, than the senate, apprehending that the soldiers at their return would challenge Valerius, who had been nominated dictator, for the performance of their promises, desired him and the two consuls to detain them still in the field, under pretence that the war was not quite finished. The consuls obeyed; but the dictator, whose authority did not depend on the senate, disbanded his army, and declared his soldiers free from the oath which they had taken; and as a further proof of his attachment to the plebeians, he chose out of that order 400, whom he invested with the dignity of knights. After this he claimed the accomplishment of the promises made by the senate: but, instead of performing them, he had the mortification to hear himself loaded with reproaches; on which he resigned his office as dictator, and acquainted the people with his inability to fulfil his engagements to them. No sooner were these transactions known in the army, than the soldiers, to a man, deserted the consuls and other officers, and retired to a hill called afterwards *Mons Sacer*, three miles from Rome, where they continued to observe an exact discipline, offering no sort of violence whatever. The senate, after taking proper measures for the defence of the city, sent a deputation to the malcontents; but it was answered with contempt. In short, all things tended to a civil war, when at last matters were compromised by the institution of tribunes of the people, who had power to prevent the passing of any law that might be prejudicial to the people, and whose persons were declared sacred, insomuch that whoever offered the least violence to the person of a tribune was declared accursed, his effects were to be consecrated to Ceres, and he himself might be killed with impunity; and all the Romans were to engage themselves, in their own name and that of their posterity, never to repeal this law. The people, after these regulations, erected an altar to Jupiter the Terrible, on the top of the hill where their camp had stood; and when they had offered sacrifices to the god, and consecrated the place of their retreat, they returned to Rome, led by their new magistrates and the deputies of the senate.

89 The soldiers revolt, but all the troubles are ended by creating tribunes of the people.

Thus the Roman constitution, which had originally been monarchic, and from thence had passed into an aristocracy, began now to verge towards a democracy. The tribunes immediately after their election obtained permission from the senate to elect two persons as their ministers or assistants, who should ease them a little in the great multiplicity of their affairs. They were called *plebeian ædiles*; and afterwards came to have the inspection of the public baths, aqueducts, with many other offices originally belonging to the consuls, after which they were called simply *ædiles*.

All opposition to the making of regular levies being now at an end, the consul Cominius led an army against the Volsci. He defeated them in battle, and took from them Longula and Tolusea; after which he besieged Corioli, a city strongly fortified, and which might be called their capital. He carried this place, and gained a victory over the Antiates, the same day; but Caius Marcius, an eminent patrician, had all the glory of both actions. The troops detached by the consul to scale the walls of Corioli being repulsed in their first assault, Marcius rallied the runaways, led them on afresh to the charge, drove back the enemy within their walls, and, entering the city with them, made himself master of it. This exploit achieved, he with all expedition put himself in the foremost ranks of the consul's main army, that was just going to engage with the Antiates, who were come to the relief of the place; and there he behaved with equal bravery, and had equal success.

90 Bravery of Caius Marcus Coriolanus.

The next day, the consul, having erected his tribunal before his tent, called the soldiers together. His whole speech to them was little more than a panegyric upon Marcius. He put a crown upon his head; assigned him a tenth part of all the spoil; and, in the name of the republic, made him a present of a fine horse with stately furniture, giving him leave at the same time to choose out any ten of the prisoners for himself; and lastly, he allotted him as much money as he could carry away. Of all these offers Marcius accepted only the horse, and one captive of the ten, an old friend of his family, that he might give him his liberty. To add to the glory of the brave warrior, the consul bestowed on him the surname of *Coriolanus*, transferring thereby from himself to Marcius all the honour of the conquest of Corioli. Cominius, at his return to Rome, disbanded his army; and war was succeeded by works of religion, public games, and treaties of peace. A census and a lustrum closed the events of this memorable consulship. There appeared to be in Rome at this time no more than 110,000 men fit to bear arms; a number by many thousands less than at the last enrollment. Doubtless great numbers had run away to avoid being slaves to their creditors.

91 Diminution of the power of the Romans.

Under the following administration of T. Geganius and P. Minucius, Rome was terribly afflicted by a famine, occasioned chiefly by the neglect of ploughing and sowing during the late troubles; for the sedition had happened after the autumnal equinox, about sowing-time, and the accommodation was not made till just before the winter solstice. The senate dispatched agents into Hetruria, Campania, the country of the Volsci, and even into Sicily, to buy corn. Those who embarked for Sicily met with a tempest which retarded their arrival at Syracuse; where they were constrained to pass the winter. At Cumæ, the tyrant Aristodemus seized the money brought by the commissaries; and they themselves with difficulty saved their lives by flight. The Volsci, far from being disposed to succour the Romans, would have marched against them, if a sudden and most destructive pestilence had not defeated their purpose. In Hetruria alone the Roman commissaries met with success. They sent a considerable quantity of grain from thence to Rome in barks; but this was in a short time consumed, and the misery became excessive: the people were reduced to eat any thing they could get; and nature in so great extremity loathed nothing.

92 A famine in the city.

During this distress a deputation came from Velitræ, a Volscian city, where the Romans had formerly planted

93 A colony sent to Velitræ.

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ed a colony, representing that nine parts in ten of its inhabitants had been swept away by a plague, and praying the Romans to send a new colony to re-people it. The conscript fathers without much hesitation granted the request, pressed the departure of the colony, and without delay named three leaders to conduct it.

The people at first were very well pleased with the proposal, as it gave them a prospect of relief in their hunger: but when they reflected on the terrible havoc the plague had made among the old inhabitants of Velitræ, they began to fear that the place might be still infected; and this apprehension became so universal, that not one of them would consent to go thither. Nevertheless the senate at length published a decree that all the citizens should draw lots; and that those to whose lot it fell to be of the colony should instantly march for Velitræ, or suffer the severest punishments for their disobedience: fear and hunger made the people comply; and the fathers, a few days after, sent away a second colony to Norba, a considerable city of Latium. But the patricians were disappointed as to the benefit they expected from these measures. The plebeians who remained in Rome being more and more pressed by hunger and want, grew daily more angry with the senate. At first they assembled in small companies to vent their wrath in abusive complaints; and at length, in one great body, rushed all together into the forum, calling out upon their tribunes for succour.

94 Disturbances raised by the tribunes.

The tribunes made it their business to heighten the general discontent. Having convened the people, Spurius Icilius, chief of the college of tribunes, inveighed most bitterly against the senate; and when he had ended his harangue, exhorted others to speak freely their thoughts; particularly, and by name, calling upon Brutus and Sicinius, the ringleaders of the former sedition, and now ædiles. These men, far from attempting to extinguish the fire, added fresh fuel to it: And the more to inflame the spirits of the multitude, they enumerated all the past insults which the people had suffered from the nobles. Brutus concluded his harangue with loudly threatening, that if the plebeians would follow his advice, he would soon oblige those men who had caused the present calamity to find a remedy for it: after which the assembly was dismissed.

The next day, the consuls, greatly alarmed at this commotion, and apprehending from the menaces of Brutus some very mischievous event, thought it advisable to convene the senators, that they might consider of the best means to avert the impending evil. The fathers could not agree in opinion. Some were for employing soft words and fair promises to quiet and gain over the most turbulent. But Appius's advice prevailed: which was, that the consuls should call the people together, assure them that the patricians had not brought upon them the miseries they suffered, and promise, on the part of the senate, all possible care to provide for their necessities; but at the same time should reprove the disturbers of the public peace, and threaten them with the severest punishments if they did not amend their behaviour.

When the consuls, towards the close of the day, having assembled the people, would have signified to them the disposition and intention of the senate, they were interrupted by the tribunes. A dispute ensued, in which no order or decency was observed on either side. Several speaking at the same time, and with great vociferation, no one could be well understood by the audience. The consuls judged, that being the superior magistrates, their authority extended to all assemblies of the citizens. On the other side, it was pretended, that the assemblies of the people were the province of the tribunes, as the senate was that of the consuls.

The dispute grew warm, and both parties were ready to come to blows; when Brutus having put some questions to the consuls, ended it for that time. Next day he proposed a law which was carried, that no person whatever should interrupt a tribune when speaking in an assembly of the people: by which means the influence and power of the popular party was considerably increased, and the tribunes became formidable opponents to the consuls and patricians. An opportunity soon offered for both parties to try their strength. A great fleet of ships laden with corn from Sicily, a great part of which was a present from Gelon the king of that country to the Romans, and the rest purchased by the senate with the public money, raised their spirits once more.

95 The power of the people increases.

But Coriolanus incurred their resentment, by insisting that it should not be distributed till the grievances of the senate were removed. For this, the tribunes summoned him to a trial before the people, under pretence that he aspired at the sovereignty.

96 Coriolanus banished.

When the appointed day was come, all persons were filled with the greatest expectations, and a vast concourse from the adjacent country assembled and filled up the forum. Coriolanus, upon this, presented himself before the people with a degree of intrepidity that merited better fortune. His graceful person, his persuasive eloquence, the cries of those whom he had saved from the enemy, inclined the auditors to relent. But being confounded with a new charge which he did not expect, of having embezzled the plunder of Antium, the tribunes immediately took the votes, and Coriolanus was condemned to perpetual exile.

This sentence against their bravest defender struck the whole body of the senate with sorrow, consternation, and regret. Coriolanus alone, in the midst of the tumult, seemed an unconcerned spectator. He returned home, followed by the lamentations of hundreds of the most respectable senators and citizens of Rome, to take a lasting leave of his wife, his children, and his mother Veturia. Thus recommending his little children to their care, he left the city, without followers or fortune, to take refuge with Tullus Attius, a man of great power among the Volscians, who took him under his protection, and espoused his quarrel.

97 He leaves the city and joins the Volsci.

The first thing to be done, was to induce the Volsci to break the league which had been made with Rome; and for this purpose Tullus sent many of his citizens thither, in order to see some games at that time celebrating; but at the same time gave the senate private information, that the strangers had dangerous intentions of burning the city. This had the desired effect; the senate issued an order that all strangers, whoever they were, should depart from Rome before sunset. This order Tullus represented to his countrymen as an infraction of the treaty, and procured an embassy to Rome, complaining of the breach, and demanding back all the territories

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territories belonging to the Volscians, of which they had been violently dispossessed; declaring war in case of a refusal: but this message was treated by the senate with contempt.

98 Gains great advantges over the Romans.

War being thus declared on both sides. Coriolanus and Tullus were made generals of the Volscians; and accordingly invaded the Roman territories, ravaging and laying waste all such lands as belonged to the plebeians, but letting those of the senators remain untouched. In the mean time, the levies went on very slowly at Rome; the two consuls, who were re-elected by the people, seemed but little skilled in war, and even feared to encounter a general whom they knew to be their superior in the field. The allies also showed their fears, and slowly brought in their succours; so that Coriolanus continued to take their towns one after the other. Fortune followed him in every expedition; and he was now so famous for his victories, that the Volsci left their towns defenceless to follow him into the field. The very soldiers of his colleague's army came over to him, and would acknowledge no other general. Thus finding himself unopposed in the field, and at the head of a numerous army, he at length invested the city of Rome itself, fully resolved to besiege it. It was then that the senate and the people unanimously agreed to send deputies to him, with proposals of restoration, in case he should draw off his army. Coriolanus received their proposals at the head of his principal officers, and, with the sternness of a general that was to give the law, refused their offers.

99 Invests the city.

Another embassy was now sent forth, conjuring him not to exact from his native city aught but what became Romans to grant. Coriolanus, however, still persisted in his former demands, and granted them but three days in which to finish their deliberations. In this exigence, all that was left was another deputation still more solemn than either of the former, composed of the pontiffs, the priests, and the augurs. These, clothed in their habits of ceremony, and with a grave and mournful deportment, issued from the city, and entered the camp of the conqueror: but all in vain, they found him severe and inflexible as before.

When the people saw them return ineffectually, they began to give up the commonwealth as lost. Their temples were filled with old men, with women and children, who, prostrate at their altars, put up their ardent prayers for the preservation of their country. Nothing was to be heard but anguish and lamentation, nothing to be seen but scenes of affright and distress. At length it was suggested to them, that what could not be effected by the intercession of the senate or the adjuration of the priests, might be brought about by the tears of his wife, or the commands of his mother. This deputation seemed to be relished by all; and even the senate itself gave it the sanction of their authority. Veturia, the mother of Coriolanus, at first made some hesitation to undertake so pious a work: however, she at last undertook the embassy and set forward from the city, accompanied by many of the principal matrons of Rome, with Volumnia his wife, and his two children. Coriolanus, who at a distance, discovered this mournful train of females, was resolved to give them a denial, and called his officers round him to be witness of his resolution; but, when told that his mother and his wife were among the number, he instantly came down from his tribunal to meet and embrace them. At first, the women's tears and embraces took away the power of words; and the rough soldier himself, hard as he was, could not refrain from sharing in their distress. Coriolanus now seemed much agitated by contending passions; while his mother, who saw him moved, seconded her words by the most persuasive eloquence, her tears: his wife and children hung round him, intreating for protection and pity; while the fair train, her companions, added their lamentations, and deplored their own and their country's distress. Coriolanus for a moment was silent, feeling the strong conflict between honour and inclination: at length, as if rouzed from his dream, he flew to take up his mother, who had fallen at his feet, crying out, "O my mother, thou hast saved Rome, but lost thy son." He accordingly gave orders to draw off the army, pretending to the officers that the city was too strong to be taken. Tullus, who had long envied his glory, was not remiss in aggravating the lenity of his conduct to his countrymen. Upon their return, Coriolanus was slain in an insurrection of the people, and afterwards honourably buried, with late and ineffectual repentance.

100 But abandons the enterprise at the intercession of his mother.

101 is assassinated by the Volsci.

The year following, the two consuls of the former year, Manlius and Fabius, were cited by the tribunes to appear before the people. The Agrarian law, which had been proposed some time before, for equally dividing the lands of the commonwealth among the people, was the object invariably pursued, and they were accused of having made unjustifiable delays in putting it off.

102 New disturbances.

It seems the Agrarian law was a grant the senate could not think of giving up to the people. The consuls, therefore, made many delays and excuses, till at length they were once more obliged to have recourse to a dictator; and they fixed upon Quintus Cincinnatus, a man who had for some time given up all views of ambition, and retired to his little farm, where the deputies of the senate found him holding the plough, and dressed in the mean attire of a labouring husbandman. He appeared but little elevated with the addresses of ceremony and the pompous habits they brought him: and, upon declaring to him the senate's pleasure, he testified rather a concern that his aid should be wanted. However, he departed for the city, where both parties were strongly inflamed against each other: but he was resolved to side with neither; only, by a strict attention to the interests of his country, instead of gaining the confidence of faction, to obtain the esteem of all. Thus, by threats and well-timed submission, he prevailed upon the tribunes to put off their law for a time, and carried himself so as to be a terror to the multitude whenever they refused to enlist; and their greatest encourager whenever their submission deserved it. Thus, having restored that tranquillity to the people which he so much loved himself, he again gave up the splendours of ambition, to enjoy it with a greater relish in his little farm.

103 Quelled by Cincinnatus.

Cincinnatus was not long retired from his office when a fresh exigence of the state once more required his assistance. The Æqui and the Volsci, who, though still worsted, still were for renewing the war, made new incroads into the territories of Rome. Minutius, one of the consuls who succeeded Cincinnatus, was sent to oppose them; but being naturally timid, and rather more

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104 who saves a consular army from destruction.

afraid of being conquered than desirous of victory, his army was driven into a defile between two mountains, from which, except through the enemy, there was no egress. This, however, the Æqui had the precaution to fortify; by which the Roman army was so hemmed in on every side, that nothing remained but submission to the enemy, famine, or immediate death. Some knights, who found means of getting away privately through the enemy's camp, were the first that brought the account of this disaster to Rome. Nothing could exceed the consternation of all ranks of people when informed of it. The senate at first thought of the other consul; but not having sufficient experience of his abilities, they unanimously turned their eyes upon Cincinnatus, and resolved to make him dictator. Cincinnatus, the only person on whom Rome could now place her whole dependence, was found, as before, by the messengers of the senate, labouring in his little field with cheerful industry. He was at first astonished at the ensigns of unbounded power with which the deputies came to invest him; but still more at the approach of the principal of the senate, who came out to meet him. A dignity so unlooked for, however, had no effect upon the simplicity or the integrity of his manners; and being now possessed of absolute power, and called upon to nominate his master of the horse, he chose a poor man named *Tarquitius*, one who, like himself, despised riches when they led to dishonour. Upon entering the city, the dictator put on a serene look, and intreated all those who were able to bear arms to repair before sunset to the Campus Martius (the place where the levies were made) with necessary arms, and provisions for five days. He put himself at the head of these; and marching all night with great expedition, he arrived before day within sight of the enemy. Upon his approach, he ordered his soldiers to raise a loud shout, to apprize the consul's army of the relief that was at hand. The Æqui were not a little amazed when they saw themselves between two enemies; but still more when they perceived Cincinnatus making the strongest entrenchments beyond them, to prevent their escape, and inclosing them as they had inclosed the consul. To prevent this, a furious combat ensued; but the Æqui, being attacked on both sides, and unable to resist or fly, begged a cessation of arms. They offered the dictator his own terms; he gave them their lives; but obliged them, in token of servitude, to pass under the yoke, which was two spears set upright, and another across, in the form of a gallows, beneath which the vanquished were to march. Their captains and generals he made prisoners of war, being resolved to adorn his triumph. As for the plunder of the enemy's camp, that he gave entirely up to his own soldiers, without reserving any part for himself, or permitting those of the delivered army to have a share. Thus, having rescued a Roman army from inevitable destruction, having defeated a powerful enemy, having taken and fortified their city, and still more, having refused any part of the spoil, he resigned his dictatorship, after having enjoyed it but 14 days. The senate would have enriched him; but he declined their proffers, choosing to retire once more to his farm and his cottage, content with temperance and fame.

But this repose from foreign invasion did not lessen the tumults of the city within. The clamours for the Agrarian law still continued, and still more fiercely, when Sicinius Dentatus, a plebeian, advanced in years, but of an admirable person and military deportment, came forward, to enumerate his hardships and his merits. This old soldier made no scruple of extolling the various merits of his youth; but indeed his achievements supported ostentation. He had served his country in the wars 40 years; he had been an officer 30, first a centurion, and then a tribune: he had fought 120 battles, in which, by the force of his single arm, he had saved a multitude of lives: he had gained 14 civic, three mural, and eight golden crowns, besides 83 chains, 60 bracelets, 18 gilt spears, and 23 horse-trappings, whereof nine were for killing the enemy in single combat: moreover, he had received 45 wounds, all before, and none behind. These were his honours: yet, notwithstanding all this, he had never received any share of those lands which were won from the enemy, but continued to drag on a life of poverty and contempt; while others were possessed of those very territories which his valour had won, without any merit to deserve them, or ever having contributed to the conquest. A case of so much hardship had a strong effect upon the multitude; they unanimously demanded that the law might be passed, and that such merit should not go unrewarded. It was in vain that some of the senators rose up to speak against it; their voices were drowned by the cries of the people. When reason, therefore, could no longer be heard, passion, as usual, succeeded; and the young patricians, running furiously into the throng, broke the balloting urns, and dispersed the multitude that offered to oppose them. For this they were some time after fined by the tribunes; but their resolution, nevertheless, for the present, put off the Agrarian law.

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105 Bravery of Sicinius Dentatus.

106 Violent disturbance.

The commonwealth of Rome had now for near 60 years been fluctuating between the contending orders that composed it, till at length, each side, as if weary, were willing to respire a while from the mutual exertions of their claims. The citizens, now, therefore, of every rank, began to complain of the arbitrary decisions of their magistrates, and wished to be guided by a written body of laws, which being known might prevent wrongs as well as punish them. In this both the senate and the people concurred, as hoping that such laws would put an end to the commotions that so long had harassed the state. It was thereupon agreed, that ambassadors should be sent to the Greek cities in Italy, and to Athens, to bring home such laws from thence as by experience had been found most equitable and useful. For this purpose, three senators, Posthumius, Sulpicius, and Manlius, were fixed upon, and galleys assigned to convoy them, agreeable to the majesty of the Roman people. While they were upon this commission abroad, a dreadful plague depopulated the city at home, and supplied the interval of their absence with other anxiety than that of wishes for their return. In about a year the plague ceased, and the ambassadors returned, bringing home a body of laws, collected from the most civilized states of Greece and Italy, which being afterwards formed into ten tables, and two more being added, made that celebrated code called the *Laws of the Twelve Tables*, many fragments of which remain to this day.

107 Ambassadors sent to Athens to bring new laws from thence.

The ambassadors were no sooner returned, than the tribunes

108 Decemviri elected.

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tribunes required that a body of men should be chosen to digest their new laws into proper form, and to give weight to the execution of them. After long debates whether this choice should not be partly made from the people as well as the patricians, it was at last agreed that 10 of the principal senators should be elected, whose power, continuing for a year, should be equal to that of kings and consuls, and that without any appeal. The persons chosen were Appius and Genutius, who had been elected consuls for the ensuing year; Posthumius, Sulpicius, and Manlius, the three ambassadors; Sextus and Romulus, former consuls; with Julius Veturius, and Horatius, senators of the first consideration.

The decemviri being now invested with absolute power, agreed to take the reins of government by turns, and that each should dispense justice for a day.

These magistrates for the first year, wrought with extreme application; and their work being finished, it was expected that they would be contented to give up their offices; but having known the charms of power, they were now unwilling to resign it: they therefore pretended that some laws were yet wanting to complete their design, and intreated the senate for a continuance of their offices; to which that body assented.

109 They become absolute.

But they soon threw off the mask of moderation; and, regardless either of the approbation of the senate or the people, resolved to continue themselves, against all order, in the decemvirate. A conduct so notorious produced discontents; and these were as sure to produce fresh acts of tyranny. The city was become almost a desert, with respect to all who had any thing to lose; and the decemvirs rapacity was then only discontinued, when they wanted fresh objects to exercise it upon. In this state of slavery, proscription, and mutual distrust, not one citizen was found to strike for his country's freedom; these tyrants continued to rule without controul, being constantly guarded, not with their lictors alone, but a numerous crowd of dependents, clients, and even patricians, whom their vices had confederated round them.

110 Invasion of the Æqui and Volsci.

In this gloomy situation of the state, the Æqui and Volsci, those constant enemies of the Romans, undertook their incursions, resolved to profit by the intestine divisions of the people, and advanced within about 10 miles of Rome.

But the decemviri, being put in possession of all the military as well as of the civil power, divided their army into three parts; whereof one continued with Appius in the city, to keep it in awe; the other two were commanded by his colleagues, and were led, one against the Æqui, and the other against the Sabines. The Roman soldiers had now got into a method of punishing the generals whom they disliked, by suffering themselves to be vanquished in the field. They put it in practice upon this occasion, and shamefully abandoned their camp upon the approach of the enemy.

111 The Romans defeated.

Never was the news of a victory more joyfully received at Rome than the tidings of this defeat: the generals, as is always the case, were blamed for the treachery of their men; some demanded that they should be deposed; others cried out for a dictator to lead the troops to conquest: but among the rest, old Sicinius Dentatus the tribune spoke his sentiments with his usual openness; and treating the generals with contempt, showed all the faults of their discipline in the camp, and of their conduct in the field. Appius, in the mean time was not remiss in observing the disposition of the people. Dentatus, in particular, was marked out for vengeance, and, under pretence of doing him particular honour, he was appointed legate, and put at the head of the supplies which were sent from Rome to reinforce the army. The office of legate was held sacred among the Romans, as in it were united the authority of a general, with the reverence due to the priesthood. Dentatus, no way suspecting his design, went to the camp with alacrity, where he was received with all the external marks of respect. But the generals soon found means of indulging their desire of revenge. He was appointed at the head of 100 men to go and examine a more commodious place for encampment, as he had very candidly assured the commanders that their present situation was wrong. The soldiers, however, who were given as his attendants, were assassins; wretches who had long been ministers of the vengeance of the decemviri, and who now engaged to murder him, though with all those apprehensions which his reputation, as he was called the *Roman Achilles*, might be supposed to inspire. With these designs, they led him from the way into the hollow bosom of a retired mountain, where they began to set upon him from behind. Dentatus, now too late, perceived the treachery of the decemviri, and was resolved to sell his life as dearly as he could; he therefore put his back to a rock, and defended himself against those who pressed most closely. Though now grown old he had still the remains of his former valour, and killed no less than 15 of the assailants, and wounded 30. The assassins now therefore, terrified at his amazing bravery, showered in their javelins upon him at a distance; all which he received in his shield with undaunted resolution. The combat, though so unequal in numbers, was managed for some time with doubtful success, till at length his assailants bethought themselves of ascending the rock against which he stood, and thus poured down stones upon him from above. This succeeded; the old soldier fell beneath their united efforts, after having shown by his death that he owed it to his fortitude, and not his fortune, that he had come off so many times victorious. The decemviri pretended to join in the general sorrow for so brave a man, and decreed him a funeral, with the first military honours; but the greatness of their apparent distress, compared with their known hatred, only rendered them still more detestable to the people.

112 Murder of Sicinius Dentatus.

113 Tragical story of Virginia.

But a transaction still more atrocious than the former served to inspire the citizens with a resolution to break all measures of obedience, and at last to restore freedom. Appius, who still remained at Rome, sitting one day on his tribunal to dispense justice, saw a maiden of exquisite beauty, and aged about 15, passing to one of the public schools, attended by a matron her nurse. Conceiving a violent passion for her, he resolved to obtain the gratification of his desire whatever should be the consequence, and found means to inform himself of her name and family. Her name was *Virginia*, the daughter of Virginius a centurion, then with the army in the field; and she had been contracted to Icilius, formerly a tribune of the people, who had agreed to marry her at the end of the

the present campaign. Appius, at first, resolved to break this match, and to espouse her himself: but the laws of the Twelve Tables had forbidden the patricians to intermarry with the plebeians; and he could not infringe these, as he was the enactor of them. Nothing therefore remained but a criminal enjoyment: which, as he was long used to the indulgence of his passions, he resolved to obtain. After having vainly tried to corrupt the fidelity of her nurse, he had recourse to another expedient, still more guilty. He pitched upon one Claudius, who had long been the minister of his pleasures, to assert the beautiful maid was his slave, and to refer the cause to his tribunal for decision. Claudius behaved exactly according to his instructions; for entering into the school, where Virginia was playing among her female companions, he seized upon her as his property, and was going to drag her away by force, but was prevented by the people drawn together by her cries. At length, after the first heat of opposition was over, he led the weeping virgin to the tribunal of Appius, and there plausibly exposed his pretensions. He asserted, that she was born in his house, of a female slave, who sold her to the wife of Virginius, who had been barren. That he had several credible evidences to prove the truth of what he said; but that, until they could come together, it was but reasonable the slave should be delivered into his custody, being her proper master. Appius seemed to be struck with the justice of his claims. He observed, that if the reputed father himself were present, he might indeed be willing to delay the delivery of the maiden for some time: but that it was not lawful for him, in the present case, to detain her from her master. He therefore adjudged her to Claudius, as his slave, to be kept by him till Virginius should be able to prove his paternity. This sentence was received with loud clamours and reproaches by the multitude: the women, in particular, came round Virginia, as if willing to protect her from the judge's fury; while Icilius, her lover, boldly opposed the decree, and obliged Claudius to take refuge under the tribunal of the decemvir. All things now threatened an open insurrection; when Appius, fearing the event, thought proper to suspend his judgment till the arrival of Virginius, who was then about 11 miles from Rome, with the army. The day following was fixed for the trial; and, in the mean time, Appius sent letters to the generals to confine Virginius, as his arrival in town might only serve to kindle sedition among the people. These letters, however, were intercepted by the centurion's friends, who sent him down a full relation of the design laid against the liberty and the honour of his only daughter. Virginius, upon this, pretending the death of a near relation, got permission to leave the camp, and flew to Rome, inspired with indignation and revenge. Accordingly, the next day he appeared before the tribunal, to the astonishment of Appius, leading his weeping daughter by the hand, both habited in the deepest mourning. Claudius, the accuser, was also there, and began by making his demand. Virginius next spoke in turn: he represented that his wife had many children; that she had been seen pregnant by numbers; that, if he had intentions of adopting a suppositious child, he would have fixed upon a boy rather than a girl; that it was notorious to all, that his wife had herself suckled her own child; and that it was surprising such a claim should be now revived after a 15 years discontinuance. While the father spoke this with a stern air, Virginia stood trembling by, and, with looks of persuasive innocence, added weight to all his remonstrances. The people seemed entirely satisfied of the hardship of his case, till Appius, fearing what he said might have dangerous effects upon the multitude, interrupted him, under a pretence of being sufficiently instructed in the merits of the cause, and finally adjudged her to Claudius, ordering the lictors to carry her off. The lictors, in obedience to his command, soon drove off the throng that pressed round the tribunal; and now they seized upon Virginia, and were delivering her up into the hands of Claudius, when Virginius, who found that all was over, seemed to acquiesce in the sentence. He therefore mildly intreated Appius to be permitted to take a last farewell of one whom he had long considered as his child; and so satisfied, he would return to his duty with fresh alacrity. With this the decemvir complied, but upon condition that their endearments should pass in his presence. Virginius, with the most poignant anguish, took his almost expiring daughter in his arms, for a while supported her head upon his breast, and wiped away the tears that rolled down her lovely visage: and happening to be near the shops that surrounded the forum, he snatched up a knife that lay on the shambles, and buried the weapon in her breast; then holding it up, reeking with the blood of his daughter, "Appius (he cried) by this blood of innocence, I devote thy head to the infernal gods." Thus saying, with the bloody knife in his hand, and threatening destruction to whomsoever should oppose him, he ran through the city, wildly calling upon the people to strike for freedom, and from thence went to the camp, in order to spread a like flame through the army.

He no sooner arrived at the camp, followed by a number of his friends, but he informed the army of all that was done, still holding the bloody knife in his hand. He asked their pardon, and the pardon of the gods, for having committed so rash an action, but ascribed it all to the dreadful necessity of the times. The army, already predisposed, immediately with shouts echoed their approbation; and decamping, left their generals behind, to take their station once more upon Mount Aventine, whither they had retired about 40 years before. The other army, which had been to oppose the Sabines, seemed to feel a like resentment, and came over in large parties to join them.

114 The decemvirate abolished.

Appius, in the mean time, did all he could to quell the disturbances in the city; but finding the tumult incapable of controul, and perceiving that his mortal enemies, Valerius and Horatius, were the most active in opposition, at first attempted to find safety by flight; nevertheless, being encouraged by Oppius, who was one of his colleagues, he ventured to assemble the senate, and urged the punishment of all deserters. The senate, however, were far from giving him the relief he sought for; they foresaw the dangers and miseries that threatened the state, in case of opposing the incensed army; they therefore dispatched messengers to them, offering to restore their former mode of government. To this proposal all the people joyfully assented, and the army gladly obeyed. Appius, and Oppius one of his colleagues, both died by their own hands in prison. The other

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other eight decemvirs went into voluntary exile; and Claudius, the pretended master of Virginia, was driven out after them.

115 New disturbances.

The tribunes now grew more turbulent: they proposed two laws; one to permit plebeians to intermarry with patricians; and the other, to permit them to be admitted to the consulship also. The senators received these proposals with indignation, and seemed resolved to undergo the utmost extremities rather than submit to enact them. However, finding their resistance only increase the commotions of the state, they at last consented to pass the law concerning intermarriages, hoping that this concession would satisfy the people. But they were to be appeased but for a very short time: for, returning to their old custom of refusing to enlist upon the approach of an enemy, the consuls were forced to hold a private conference with the chief of the senate; where, after many debates, Claudius proposed an expedient as the most probable means of satisfying the people in the present conjuncture. This was, to create six or eight governors in the room of consuls, whereof one half at least should be patricians. This project was eagerly embraced by the people; yet, so fickle were the multitude, that though many of the plebeians stood, the choice wholly fell upon the patricians who offered themselves as candidates. These new magistrates were called *military tribunes*; they were at first but three, afterwards they were increased to four, and at length to six. They had the power and ensigns of consuls; yet that power being divided among a number, each singly was of less authority. The first that were chosen only continued in office about three months, the augurs having found something amiss in the ceremonies of their election.

116 Military tribunes elected.

The military tribunes being deposed, the consuls once more came into office; and in order to lighten the weight of business which they were obliged to sustain, a new office was erected, namely, that of *censors*, to be chosen every fifth year. Their business was to take an estimate of the number and estates of the people, and to distribute them into their proper classes; to inspect into the lives and manners of their fellow-citizens; to degrade senators for misconduct; to dismount knights; and to turn down plebeians from their tribes into an inferior, in case of misdemeanour. The two first censors were Papirius and Sempronius, both patricians; and from this order they continued to be elected for near 100 years.

117 The office of censor instituted.

This new creation served to restore peace for some time among the orders; and the triumph gained over the Volscians, by Geganius the consul, added to the universal satisfaction that reigned among the people.

This calm, however, was but of short continuance: for, some time after, a famine pressing hard upon the poor, the usual complaints against the rich were renewed; and these, as before, proving ineffectual, produced new seditions. The consuls were accused of neglect in not having laid in proper quantities of corn: they, however, disregarded the murmurs of the populace, content with exerting all their care in attempts to supply the pressing necessities. But though they did all that could be expected from active magistrates, in providing and distributing provisions to the poor; yet Spurius Mælius, a rich knight, who had bought up all the corn of Tuscany, by far outshone them in liberality. This demagogue, inflamed with a secret desire of becoming powerful by the contentions in the state, distributed corn in great quantities among the poorer sort each day, till his house became an asylum of all such as wished to exchange a life of labour for one of lazy dependence. When he had thus gained a sufficient number of partizans, he procured large quantities of arms to be brought into his house by night, and formed a conspiracy, by which he was to obtain the command, while some of the tribunes, whom he had found means to corrupt, were to act under him, in seizing upon the liberties of his country. Minucius soon discovered the plot; and informing the senate thereof, they immediately formed the resolution of creating a dictator, who should have the power of quelling the conspiracy without appealing to the people. Cincinnatus, who was now 80 years old, was chosen once more to rescue his country from impending danger. He began by summoning Mælius to appear; who refused to obey. He next sent Ahala, his master of the horse, to force him; who, meeting him in the forum, and pressing Mælius to follow him to the dictator's tribunal, upon his refusal Ahala killed him upon the spot. The dictator applauded the resolution of his officer, and commanded the conspirator's goods to be sold, and his house to be demolished, distributing his stores among the people.

118 Disturbances by Mælius a knight,

119 who is killed.

The tribunes of the people were much enraged at the death of Mælius; and, in order to punish the senate, at the next election, instead of consuls, insisted upon restoring their military tribunes. With this the senate were obliged to comply. The next year, however, the government returned to its ancient channel, and consuls were chosen.

120 The destruction of Veii resolved.

The Veientes had long been the rivals of Rome; they had ever taken the opportunity of its internal distresses to ravage its territories, and had even threatened its ambassadors, sent to complain of these injuries, with outrage. In war they had been extremely formidable, and had cut off almost all the Fabian family; who, to the number of 306 persons, had voluntarily undertaken to defend the frontiers against their incursions. It seemed now therefore determined, that the city of Veii, whatever it should cost, was to fall; and the Romans accordingly sat regularly down before it, prepared for a long and painful resistance. The strength of the place, or the unskilfulness of the besiegers, may be inferred from the continuance of the siege, which lasted for 10 years; during which time the army continued encamped round it, lying in winter under tents made of the skins of beasts, and in summer driving on the operations of the attack. Various was the success, and many were the commanders that directed the siege: sometimes all the besiegers works were destroyed, and many of their men cut off by sallies from the town; sometimes they were annoyed by an army of Veians, who attempted to bring assistance from without. A siege so bloody seemed to threaten depopulation to Rome itself, by draining its forces continually away; so that a law was obliged to be made for all the bachelors to marry the widows of the soldiers who were slain. In order to carry it on with greater vigour, Furius Camillus was created dictator, and to him was intrusted the sole power of managing the long protracted war. Camillus, who, without intrigue or any solicitation had raised himself to the first

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eminence in the state, had been made one of the censors some time before, and was considered as the head of that office; he was afterwards made a military tribune, and had in this post gained several advantages over the enemy. It was his great courage and abilities in the above offices that made him thought most worthy to serve his country on this pressing occasion. Upon his appointment, numbers of the people flocked to his standard, confident of success under so experienced a commander. Conscious, however, that he was unable to take the city by storm, he secretly wrought a mine into it with vast labour, which opened into the midst of the citadel. Certain thus of success, and finding the city incapable of relief, he sent to the senate, desiring that all who chose to share in the plunder of Veii should immediately repair to the army. Then giving his men directions how to enter at the breach, the city was instantly filled with his legions, to the amazement and consternation of the besieged, who but a moment before, had rested in perfect security. Thus, like a second Troy, was the city of Veii taken, after a ten years siege, and with its spoils enriched the conquerors; while Camillus himself, transported with the honour of having subdued the rival of his native city, triumphed after the manner of the kings of Rome, having his chariot drawn by four milk-white horses; a distinction which did not fail to disgust the majority of the spectators, as they considered those as sacred, and more proper for doing honour to their gods than their generals.

121 Is taken by Camillus.

122 His generosity to the Falisci.

His usual good fortune attended Camillus in another expedition against the Falisci; he routed their army, and besieged their capital city Falerii, which threatened a long and vigorous resistance. Here a schoolmaster, who had the care of the children belonging to the principal men of the city, having found means to decoy them into the Roman camp, offered to put them into the hands of Camillus, as the surest means of inducing the citizens to a speedy surrender. The general was struck with the treachery of a wretch whose duty it was to protect innocence, and not to betray it; and immediately ordered him to be stripped, his hands tied behind him, and in that ignominious manner to be whipped into the town by his own scholars. This generous behaviour in Camillus effected more than his arms could do: the magistrates of the town immediately submitted to the senate, leaving to Camillus the conditions of their surrender; who only fined them in a sum of money to satisfy his army, and received them under the protection and into the alliance of Rome.

Notwithstanding the veneration which the virtues of Camillus had excited abroad, they seemed but little adapted to bring over the respect of the turbulent tribunes at home, as they raised some fresh accusation against him every day. To their other charges they added that of his having concealed a part of the plunder of Veii, particularly two brazen gates, for his own use; and appointed him a day on which to appear before the people. Camillus, finding the multitude exasperated against him upon many accounts, detesting their ingratitude, resolved not to wait the ignominy of a trial; but embracing his wife and children, prepared to depart from Rome. He had already passed as far as one of the gates, unattended on his way, and unlamented. There he could suppress his indignation no longer; but, turning his face to the capitol, and lifting up his hands to heaven, intreated all the gods that his country might one day be sensible of their injustice and ingratitude; and so saying, he passed forward to take refuge at Ardea, where he afterwards learned that he had been fined 1500 ases by the tribunes at home.

123 He goes to voluntary exile.

The Romans indeed soon had reason to repent their usage of Camillus; for now a more formidable enemy than ever they had met with threatened the republic: an inundation of Gauls, leaving their native woods, under the command of one Brennus, wasted every thing with fire and sword. It is said that one Cœditius, a man of the lowest rank, pretended to have heard a miraculous voice, which pronounced distinctly these words: "Go to the magistrates, and tell them that the Gauls draw near." The meanness of the man made his warning despised; though, when the event showed the truth of his prediction, Camillus erected a temple to the unknown Deity, and the Romans invented for him the name of *Aius Locutius*. Messenger after messenger arrived with the news of the progress and devastations of the Gauls; but the Romans behaved with as much security as if it had been impossible for them to have felt the effects of their depredations. At last envoys arrived at Rome, imploring the assistance of the republic against an army of Gauls, which had made an irruption into Italy, and now besieged their city. The occasion of the irruption and siege was this: Arunx, one of the chief men of Clusium in Hetruria, had been guardian to a young lucumo, or lord of a lucomony, and had educated him in his house from his infancy. The lucumo, as soon as he was of an age to feel the force of passion, fell in love with his guardian's wife; and, upon the first discovery of their intrigue, conveyed her away. Arunx endeavoured to obtain reparation for the injury he had received; but the lucumo, by his interest and money, gained over the magistrates: so that the injured guardian, finding no protectors in Hetruria, resolved to make his application to the Gauls. The people among all the Celtic nations, to whom he chose to address himself, were the Senones; and, in order to engage them in his quarrel, he acquainted them with the great plenty of Italy, and made them taste of some Italian wines. Upon this the Senones resolved to follow him; and a numerous army was immediately formed, which passing the Alps, under the conduct of their Hetrurian guide, and leaving the Celtæ in Italy unmolested, fell upon Umbria, and possessed themselves of all the country from Ravenna to Picenum. They were about six years in settling themselves in their new acquisitions, while the Romans were carrying on the siege of Veii. At length Arunx brought the Senones before Clusium, in order to besiege that place, his wife and her lover having shut themselves up there.

124 Italy invaded by the Gauls.

125 Occasion of their invasion.

The senate, being unwilling to engage in an open war with a nation which had never offended them, sent an embassy of three young patricians, all brothers, and of the Fabian family, to bring about an accommodation between the two nations. These ambassadors, being arrived at the camp of the Gauls, and conducted into the council, offered the mediation of Rome; and demanded of Brennus, the leader of the Gauls, What injury the Clusini had done him; or what pretensions any people from a remote country could have upon Hetruria?

126 The Romans send an embassy to them.

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Brennus answered proudly, that his right lay in his sword, and that all things belonged to the brave; but that, without having recourse to this primitive law of nature, he had a just complaint against the Clusians, who, having more lands than they could cultivate, had refused to yield to him those they left untilled: And what other motives had you yourselves, Romans (said he), to conquer so many neighbouring nations? You have deprived the Sabines, the Albans, the Fidenates, the Æqui, and the Volsci, of the best part of their territories. Not that we accuse you of injustice; but it is evident, that you thought this to be the prime and most ancient of all laws, to make the weak give way to the strong. Forbear therefore to interest yourselves for the Clusini, or allow us to take the part of the people you have subdued."

127 Imprudent conduct of the ambassadors.

The Fabii were highly provoked at so haughty an answer; but, dissembling their resentment, desired leave to go into the town, under pretence of conferring with the magistrates. But they were no sooner there, than they began to stir up the inhabitants to a vigorous defence; nay, forgetting their character, they put themselves at the head of the besieged in a sally, in which Q. Fabius, the chief of the ambassadors, slew with his own hand one of the principal officers of the Gauls. Hereupon Brennus, calling the gods to witness the perfidiousness of the Romans, and their violating the law of nations, immediately broke up the siege of Clusium, and marched leisurely to Rome, having sent a herald before him to demand that those ambassadors, who had so manifestly violated the law of nations, should be delivered up to him. The Roman senate was greatly perplexed between their regard for the law of nations and their affection for the Fabii. The wisest of the senate thought the demand of the Gauls to be but just and reasonable: however, as it concerned persons of great consequence and credit, the conscript fathers referred the affair to the people assembled by curiæ. As the Fabian family was very popular, the curiæ were so far from condemning the three brothers, that at the next election of military tribunes, they were chosen the first. Brennus, looking upon the promotion of the Fabii as a high affront on his nation, hastened his march to Rome.

128 The Gauls require them to be delivered up to them but are refused.

As his army was very numerous, the inhabitants of the towns and villages through which he passed left their habitations at his approach; but he stopped nowhere, declaring that his design was only to be revenged on the Romans. The six military tribunes, to wit, Q. Fabius, Cæso Fabius, Caius Fabius, Q. Sulpitius, Q. Servilius, and Sextus Cornelius, marched out of Rome at the head of 40,000 men, without either sacrificing to the gods or consulting the auspices; essential ceremonies among a people that drew their courage and confidence from the propitious signs which the augurs declared to them. As most of the military tribunes were young, and men of more valour than experience, they advanced boldly against the Gauls, whose army was 70,000 strong. The two armies met near the river Allia, about 60 furlongs from Rome. The Romans, that they might not be surrounded by the enemy, extended their wings so far as to make their centre very thin. Their best troops, to the number of 24,000 men, they posted between the river and the adjoining hills; the rest they placed on the hills. The Gauls first attacked the latter, who being soon put into confusion, the forces in the plain were struck with such terror, that they fled without drawing their swords. In this general disorder, most of the soldiers, instead of returning to Rome, fled to Vii: some were drowned as they endeavoured to swim across the Tiber; many fell in the pursuit by the sword of the conquerors: and some got to Rome, which they filled with terror and consternation, it being believed there that all the rest were cut off. The day after the battle, Brennus marched his troops into the neighbourhood of Rome, and encamped on the banks of the Anio. Thither his scouts brought him word, that the gates of the city lay open, and that not one Roman was to be seen on the ramparts. This made him apprehensive of some ambuscade, it being unreasonable to suppose that the Romans would abandon their city to be plundered and sacked without making any resistance. On this consideration he advanced slowly, which gave the Romans an opportunity to throw into the Capitol all the men who were fit to bear arms. They carried into it all the provisions they could get; and, that they might last the longer, admitted none into the place but such as were capable of defending it.

129 The Romans entirely defeated.

130 They retire into the Capitol.

As for the city, they had not sufficient forces to defend it; and therefore the old men, women, and children, seeing themselves abandoned, fled to the neighbouring towns. The Vestals, before they left Rome, took care to hide every thing appropriated to the gods which they could not carry off. The two palladiums, and the sacred fire, they took with them. When they came to the Janiculus, one Albinius, a plebeian, who was conveying his wife and children in a carriage to a place of safety, seeing the sacred virgins bending under their load, and their feet bloody, made his family alight, put the priestesses and their gods into the carriage, and conducted them to Cære, a city of Hetruria, where they met with a favourable reception. The Vestals remained at Cære, and there continued to perform the usual rites of religion; and hence those rites were called *ceremonies*. But while the rest of the citizens at Rome were providing for their safety, about 80 of the most illustrious and venerable old men, rather than fly from their native city, chose to devote themselves to death by a vow, which Fabius the high pontiff pronounced in their names. The Romans believed, that, by these voluntary devotements to the infernal gods, disorder and confusion was brought among the enemy. Of these brave old men some were pontifices, others had been consuls, and others generals of armies, who had been honoured with triumphs. To complete their sacrifice with a solemnity and pomp becoming the magnanimity and constancy of the Romans, they dressed themselves in their pontifical, consular, and triumphal robes; and repairing to the forum, seated themselves there in their curule chairs, expecting the enemy and death with the greatest constancy.

131 Origin of the word *ceremonies*.

132 Rome plundered and burnt.

At length Brennus, having spent three days in useless precautions, entered the city the fourth day after the battle. He found the gates open, the walls without defence, and the houses without inhabitants. Rome appeared to him like a mere desert; and this solitude increased his anxiety. He could not believe, either that all the Romans were lodged in the Capitol, or that so numerous a people should abandon the place of their nativity. On the other hand, he could nowhere see any

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any armed men but on the walls of the citadel. However, having first secured all the avenues to the Capitol with strong bodies of guards, he gave the rest of his soldiers leave to disperse themselves all over the city and plunder it. Brennus himself advanced into the forum with the troops under his command, in good order; and there he was struck with admiration at the unexpected sight of the venerable old men who had devoted themselves to death. Their magnificent habits, the majesty of their countenances, the silence they kept, their modesty and constancy at the approach of his troops, made him take them for so many deities: for they continued as motionless as statues, and saw the enemy advance without showing the least concern. The Gauls kept a great while at an awful distance from them, being afraid to come near them. But at length one soldier bolder than the rest, having out of curiosity touched the beard of M. Papirius, the venerable old man, not being used to such familiarity, gave him a blow on the head with his ivory staff. The soldier in revenge immediately killed him; and the rest of the Gauls following his example, slaughtered all those venerable old men without mercy.

After this the enemy set no bounds to their rage and fury. They plundered all places, dragging such of the Romans as had shut themselves up in their houses into the streets, and there putting them to the sword without distinction of age or sex. Brennus then invested the Capitol; but being repulsed with great loss, in order to be revenged of the Romans for their resistance, he resolved to lay the city in ashes. Accordingly by his command, the soldiers set fire to the houses, demolished the temples and public edifices, and rased the walls to the ground. Thus was the famous city of Rome entirely destroyed; nothing was to be seen in the place where it stood but a few little hills covered with ruins, and a wide waste, in which the Gauls who invested the Capitol were encamped. Brennus, finding he should never be able to take a place which nature had so well fortified otherwise than by famine, turned the siege into a blockade. But in the mean time, his army being distressed for want of provisions, he sent out parties to pillage the fields, and raise contributions in the neighbouring cities. One of these parties appeared before Ardea, where the great Camillus had now spent two years in a private life. Notwithstanding the affront he had received at Rome, the love he bore his country was not in the least diminished. The senate of Ardea being met to deliberate on the measures to be taken with relation to the Gauls, Camillus, more afflicted at the calamities of his country than at his own banishment, desired to be admitted into the council, where, with his eloquence, he prevailed upon the Ardeates to arm their youth in their own defence, and refuse the Gauls admittance into their city.

133 They invest the Capitol.

Hereupon the Gauls encamped before the city; and as they despised the Ardeates after they had made themselves masters of Rome, they preserved neither order nor discipline in the camp, but spent whole days in drinking. Hereupon Camillus, having easily persuaded the youth of the city to follow him, marched out of Ardea in a very dark night, surprised the Gauls drowned in wine, and made a dreadful slaughter of them. Those who made their escape under the shelter of the night fell next day into the hands of the peasants, by whom they were massacred without mercy. This defeat of the enemy revived the courage of the Romans scattered about the country, especially of those who had retired to Veii after the unfortunate battle of Allia. There was not one of them who did not condemn himself for the exile of Camillus, as if he had been the author of it; and looking upon that great man as their last resource, they resolved to choose him for their leader. Accordingly, they sent without delay ambassadors to him, beseeching him to take into his protection the fugitive Romans, and the wrecks of the defeat at Allia. But Camillus would not accept of the command of the troops till the people assembled by curiæ had legally conferred it upon him. He thought the public authority was lodged in the hands of those who were shut up in the citadel, and therefore would undertake nothing at the head of the Roman troops till a commission was brought him from thence.

134 A great number of them cut off by Camillus.

To do this was very difficult, the place being invested on all sides by the enemy. However, one Pontius Cominius, a man of mean birth, but bold and very ambitious of glory, undertook it. He put on a light habit, and, providing himself with cork to keep the longer above water, threw himself into the Tiber above Rome in the beginning of the night, and suffered himself to be carried down with the stream. At length he came to the foot of the Capitol, and landed at a steep place where the Gauls had not thought it necessary to post any centinels. There he mounted with great difficulty to the rampart of the citadel; and having made himself known to the guards, he was admitted into the place, and conducted to the magistrates. The senate being immediately assembled, Pontius gave them an account of Camillus's victory; and in the name of all the Romans at Veii demanded that great captain for their general. There was not much time spent in debates: the curiæ being called together, the act of condemnation which had been passed on Camillus was abrogated, and he named dictator with one voice. Pontius was immediately dispatched with the decree; and the same good fortune which had attended him to the Capitol accompanied him in his return. Thus was Camillus, from the state of banishment, raised at once to be sovereign magistrate of his country. His promotion to the command was no sooner known, but soldiers flocked from all parts to his camp; insomuch that he soon saw himself at the head of above 40,000 men, partly Romans and partly allies, who all thought themselves invincible under so great a general.

135 He is chosen dictator.

While he was taking proper measures to raise the blockade of the citadel, some Gauls rambling round the place, perceived on the side of the hill the print of Pontius's hands and feet. They observed likewise, that the moss on the rocks was in several places torn up. From these marks they concluded, that somebody had lately gone up to and returned from the Capitol. The Gauls immediately made their report to Brennus of what they had observed; and that experienced commander laid a design, which he imparted to nobody, of surprising the place by the same way that the Roman had ascended. With this view he chose out of the army such soldiers as had dwelt in mountainous countries, and been accustomed from their youth to climb precipices. These he ordered, after he had well examined the nature of the place, to ascend in the night the same way that was marked

136 The Gauls endeavour to surprise the Capitol;

marked out for them; climbing two abreast, that one might support the other in getting up the steep parts of the precipice. By this means they advanced with much difficulty from rock to rock, till they arrived at the foot of the wall. They proceeded with such silence, that they were not discovered or heard, either by the centinels who were upon guard in the citadel, or even by the dogs, that are usually awaked and alarmed at the least noise. But though they eluded the sagacity of the dogs, they could not escape the vigilance of the geese. A flock of these birds was kept in a court of the Capitol in honour of Juno, and near her temple. Notwithstanding the want of provisions in the garrison, they had been spared out of religion; and as these creatures are naturally quick of hearing, they were alarmed at the first approach of the Gauls: so that running up and down, with their cackling and beating of their wings, they awaked Manlius, a gallant soldier, who some years before had been consul. He sounded an alarm, and was the first man who mounted the rampart, where he found two Gauls already upon the wall. One of these offered to discharge a blow at him with his battle-axe; but Manlius cut off his right hand at one blow, and gave the other such a push with his buckler, that he threw him headlong from the top of the rock to the bottom. He, in his fall, drew many others with him; and in the mean time, the Romans crowding to the place, pressed upon the Gauls, and tumbled them one over another. As the nature of the ground would not suffer them to make a regular retreat, or even to fly, most of them, to avoid the swords of the enemy, threw themselves down the precipice, so that very few got safe back to their camp.

137 but are discovered and repulsed.

As it was the custom of the Romans at that time not to suffer any commendable action to go unrewarded, the tribune Sulpitius assembled his troops the next morning, in order to bestow the military rewards on those who, the night before, had deserved them. Among these Manlius was first named; and, in acknowledgment of the important service he had just rendered the state, every soldier gave him part of the corn which he received sparingly from the public stock, and a little measure of wine out of his scanty allowance; an inconsiderable present indeed in itself, but very acceptable at that time to the person on whom it was bestowed. The tribune's next care was to punish the negligent: accordingly the captain of the guard, who ought to have had an eye over the centinels, was condemned to die, and, pursuant to his sentence, thrown down from the top of the Capitol. The Romans extended their punishments and rewards even to the animals. Geese were ever after had in honour at Rome, and a flock of them always kept at the expence of the public. A golden image of a goose was erected in memory of them, and a goose every year carried in triumph upon a soft litter finely adorned; whilst dogs were held in abhorrence by the Romans, who every year impaled one of them on a branch of elder.

The blockade of the Capitol had already lasted seven months; so that the famine began to be very sensibly felt both by the besieged and besiegers. Camillus, since his nomination to the dictatorship, being master of the country, had posted strong guards on all the roads; so that the Gauls dared not stir out for fear of being cut to pieces. Thus Brennus, who besieged the Capitol, was besieged himself, and suffered the same inconveniences which he made the Romans undergo. Besides, a plague raged in his camp, which was placed in the midst of the ruins of the demolished city, his men lying confusedly among the dead carcases of the Romans, whom they had slain, and not buried. So great a number of them died in one quarter of the city, that it was afterwards called *Busta Gallica*, or the place where the dead bodies of the Gauls were burnt. But, in the mean time, the Romans in the Capitol were more pinched with want than the Gauls. They were reduced to the last extremity, and at the same time ignorant both of the lamentable condition to which the enemy's army was brought, and of the steps Camillus was taking to relieve them. That great general only waited for a favourable opportunity to fall upon the enemy; but, in the mean time, suffered them to pine away in their infected camp, not knowing the extreme want the Romans endured in the Capitol, where they were so destitute of all sorts of provisions, that they could no longer subsist. Matters being brought to this sad pass on both sides, the centinels of the Capitol, and those of the enemy's army, began to talk to one another of an accommodation. Their discourses came at length to the ears of their leaders, who were not averse to the design.

The senate, not knowing what was become of Camillus, and finding themselves hard pinched by hunger, resolved to enter upon a negociation, and empowered Sulpitius, one of the military tribunes, to treat with the Gauls; who made no great difficulty in coming to terms, they being no less desirous than the Romans to put an end to the war. In a conference, therefore, between Brennus and Sulpitius, an agreement was made, and sworn to. The Romans were to pay to the Gauls 1000 pounds weight of gold, that is, 45,000l. sterling; and the latter were to raise the siege of the Capitol, and quit all the Roman territories. On the day appointed, Sulpitius brought the sum agreed on, and Brennus the scales and weights; for there were no gold or silver coins at that time, metals passing only by weight. We are told, that the weights of the Gauls were false, and their scales untrue; which Sulpitius complaining of, Brennus, instead of redressing the injustice, threw his sword and belt into the scale where the weights were; and when the tribune asked him the meaning of so extraordinary a behaviour, the only answer he gave was *Væ Victis!* "Wo to the conquered!" Sulpitius was so stung with this haughty answer, that he was for carrying the gold back into the Capitol, and sustaining the siege to the last extremity; but others thought it advisable to put up the affront, since they had submitted to a far greater one, which was to pay any thing at all.

138 The Romans agree to pay 1000 pounds of gold for their ransom.

During these disputes of the Roman deputies among themselves and with the Gauls, Camillus advanced with his army to the very gates of the city; and being there informed of what was doing, he commanded the main body to follow him slowly and in good order, while he, with the choicest of his men, hastened to the place of the parley. The Romans, overjoyed at his unexpected arrival, opened to make room for him as the supreme magistrate of the republic, gave him an account of the treaty they had made with the Gauls, and complained of the wrong Brennus did them in the execution of it.

Rome.

139 Camillus drives away the Gauls.

They had scarce done speaking, when Camillus cried out, "Carry back this gold into the Capitol: and you, Gauls, retire with your scales and weights. Rome must not be redeemed with gold, but with steel.' Brennus replied, That he contravened a treaty which was concluded and confirmed with mutual oaths. "Be it so (answered Camillus); yet it is of no force, having been made by an inferior magistrate, without the privity or consent of the dictator. I, who am invested with the supreme authority over the Romans, declare the contract void." At these words Brennus flew into a rage; and both sides drawing their swords, a confused scuffle ensued among the ruins of the houses, and in the narrow lanes. The Gauls, after an inconsiderable loss, thought fit to retire within their camp, which they abandoned in the night, not caring to engage Camillus's whole army, and, having marched eight miles, encamped on the Gabinian way. Camillus pursued them as soon as it was day, and, coming up with them, gave them a total overthrow. The Gauls, according to Livy, made but a faint resistance, being disheartened at the loss they had sustained the day before. It was not, says that author, so much a battle as a slaughter. Many of the Gauls were slain in the action, more in the pursuit; but the greater number were cut off, as they wandered up and down in the fields, by the inhabitants of the neighbouring villages. In short, there was not one single Gaul left to carry to his countrymen the news of this fatal catastrophe. The camp of the barbarians was plundered; and Camillus, loaded with spoils, returned in triumph to the city, the soldiers in their songs styling him *Romulus, Father of his country*, and *Second founder of Rome*.

140 The Gauls entirely cut off.

As the houses of Rome were all demolished, and the walls razed, the tribunes of the people renewed, with more warmth than ever, an old project which had occasioned great disputes. They had formerly proposed a law for dividing the senate and government between the cities of Veii and Rome. Now this law was revived: nay, most of the tribunes were for entirely abandoning their old ruined city, and making Veii the sole seat of the empire. The people were inclined to favour the project, Veii offering them a place fortified by art and nature, good houses ready built, a wholesome air, and a fruitful territory. On the other hand, they had no materials for rebuilding a whole city, were quite exhausted by misfortunes, and even their strength was greatly diminished. This gave them a reluctance to so great an undertaking, and emboldened the tribunes to utter seditious harangues against Camillus, as a man too ambitious of being the restorer of Rome. They even insinuated that the name of Romulus, which had been given him, threatened the republic with a new king. But the senate took the part of Camillus, and, being desirous to see Rome rebuilt, continued him, contrary to custom, a full year in the office of dictator; during which time he made it his whole business to suppress the strong inclination of the people to remove to Veii. Having assembled the curiæ, he expostulated with them upon the matter: and by arguments drawn from prudence, religion, and glory, prevailed upon them to lay aside all thoughts of leaving Rome. As it was necessary to have the resolution of the people confirmed by the senate, the dictator reported it to the conscript fathers, leaving every one at full liberty to vote as he pleased. While L. Lucretius, who was to give his opinion the first, was beginning to speak, it happened that a centurion, who with his company had been upon guard, and was then marching by the senate-house, cried out aloud, "Plant your colours, ensign: this is the best place to stay in." These words were considered as dictated by the gods themselves; and Lucretius, taking occasion from them to urge the necessity of staying in Rome, "An happy omen (cried he); I adore the gods who gave it." The whole senate applauded his words; and a decree was passed without opposition for rebuilding the city.

141 Disputes about removing to Veii.

Rome.

Though the tribunes of the people were defeated by Camillus in this point, they resolved to exercise their authority against another patrician, who had indeed deserved punishment. This was Q. Fabius, who had violated the laws of nations, and thereby provoked the Gauls, and occasioned the burning of Rome. His crime being notorious, he was summoned by C. Martius Rutilus before the assembly of the people, to answer for his conduct in his embassy. The criminal had reason to fear the severest punishment: but his relations gave out that he died suddenly; which generally happened when the accused person had courage enough to prevent his condemnation, and the shame of a public punishment. On the other hand, the public gave an house situated on the Capitol to M. Manlius, as a monument of his valour, and of the gratitude of his fellow-citizens. Camillus closed this year by laying down his dictatorship: whereupon an interregnum ensued, during which he governed the state alternately with P. Cornelius Scipio; and it fell to his lot to preside at the election of new magistrates, when L. Valerius Poplicola, L. Virginius Tricostus, P. Cornelius Cossus, A. Manlius Capitolinus, L. Æmilius Mamercinus, and L. Posthumius Albinus, were chosen. The first care of these new magistrates was to collect all the ancient monuments of the religion and civil laws of Rome which could be found among the ruins of the demolished city. The laws of the twelve tables, and some of the laws of the kings, had been written on brass, and fixed up in the forum; and the treaties made with several nations had been engraved on pillars erected in the temples. Pains were therefore taken to gather up the ruins of these precious monuments; and what could not be found was supplied by memory. The pontifices, on their part, took care to re-establish the religious ceremonies, and made also a list of lucky and unlucky days.

142 Marcus Manlius rewarded.

And now the governors of the republic applied themselves wholly to rebuild the city. Plutarch tells us, that as the workmen were digging among the ruins of the temple of Mars, they found Romulus's augural staff untouched by the flames; and that this was looked upon as a prodigy, from whence the Romans inferred that their city would continue for ever. The expence of building private houses was partly defrayed out of the public treasure. The ædiles had the direction of the works; but they had so little taste for order or beauty, that the city, when rebuilt, was even less regular than in the time of Romulus. And though in Augustus's time, when Rome became the capital of the known world, the temples, palaces and private houses, were built in a more magnificent manner than before; yet even then these new decorations did not rectify the faults of the plan

143 The city rebuilt.

Rome.

plan upon which the city had been built after its first demolition.

144 A general combination against the Romans.

Rome was scarce restored, when her citizens were alarmed by the news that all her neighbours were combining to her destruction. The Æqui, the Volsci, the Hetrurians, and even her old friends the Latins and the Hernici, entered into an alliance against her, in hopes of oppressing her before she had recovered her strength. The republic, under this terror, nominated Camillus dictator a third time. This great commander, having appointed Servilius to be his general of horse, summoned the citizens to take arms, without excepting even the old men. He divided the new levies into three bodies. The first, under the command of A. Manlius, he ordered to encamp under the walls of Rome; the second he sent into the neighbourhood of Veii; and marched himself at the head of the third, to relieve the tribunes, who were closely besieged in their camp by the united forces of the Volsci and Latins. Finding the enemy encamped near Lanuvium, on the declivity of the hill Marcius, he posted himself behind it, and by lighting fires, gave the distressed Romans notice of his arrival. The Volsci and Latins, when they understood that Camillus was at the head of an army newly arrived, were so terrified, that they shut themselves up in their camp, which they fortified with great trees cut down in haste. The dictator, observing that this barrier was of green wood, and that every morning there arose a great wind, which blew full upon the enemy's camp, formed the design of taking it by fire. With this view he ordered one part of his army to go by break of day with fire-brands to the windward side of the camp, and the other to make a brisk attack on the opposite side. By this means the enemy were entirely defeated, and their camp taken. Camillus then commanded his men to extinguish the flames, in order to save the booty, with which he rewarded his army. He then left his son in the camp to guard the prisoners; and, entering the country of the Æqui, made himself master of their capital city Bola. From thence he marched against the Volsci; whom he entirely reduced, after they had waged war with the Romans for the space of 107 years. Having subdued this untractable people, he penetrated into Hetruria, in order to relieve Sutrium, a town in that country in alliance with Rome, and besieged by a numerous army of Hetrurians. But, notwithstanding all the expedition Camillus could use, he did not reach the place before it had capitulated. The Sutrini, being greatly distressed for want of provisions, and exhausted with labour, had surrendered to the Hetrurians, who had granted them nothing but their lives, and the clothes on their backs. In this destitute condition they had left their own country, and were going in search of new habitations, when they met Camillus leading an army to their relief.

145 Camillus defeats the Volsci and Latins,

116 and the Hetrurians.

The unfortunate multitude no sooner saw the Romans, but they threw themselves at the dictator's feet, who, moved at this melancholy sight, desired them to take a little rest, and refresh themselves, adding, that he would soon dry up their tears, and transfer their sorrows from them to their enemies. He imagined, that the Hetrurians would be wholly taken up in plundering the city, without being upon their guard, or observing any discipline. And herein he was not mistaken. The Hetrurians did not dream that the dictator could come so speedily from such a distance to surprise them; and therefore were wholly employed in plundering the houses and carrying off the booty, or feasting on the provisions they had found in them. Many of them were put to the sword, and an incredible number made prisoners; and the city was restored to its ancient inhabitants, who had not waited in vain for the performance of the dictator's promise. And now, after these glorious exploits, which were finished in so short a time, the great Camillus entered Rome in triumph a third time.

Rome.

Camillus having resigned his dictatorship, the republic chose six new military tribunes, Q. Quinctius, Q. Servius, L. Julius, L. Aquilius, L. Lucretius, and Ser. Sulpitius. During their administration the country of the Æqui was laid waste, in order to put it out of their power to revolt anew; and the two cities of Cortuosa and Contenebra, in the lucumony of the Tarquiniensis, were taken from the Hetrurians, and entirely demolished. At this time it was thought proper to repair the Capitol, and add new works to that part of the hill where the Gauls had endeavoured to scale the citadel. These works were esteemed very beautiful, as Livy informs us, even in the time of Augustus, after the city was embellished with most magnificent decorations.

And now Rome being reinstated in her former flourishing condition, the tribunes of the people, who had been for some time quiet, began to renew their seditious harangues, and revive the old quarrel about the division of the conquered land. The patricians had appropriated to themselves the Pomptin territory lately taken from the Volsci, and the tribunes laid hold of this opportunity to raise new disturbances. But the citizens being so drained of their money that they had not enough left to cultivate new farms and stock them with cattle, the declamations of the tribunes made no impression upon their minds; so that the project vanished. As for the military tribunes, they owned that their election had been defective; and, lest the irregularities of the former comitia should be continued in the succeeding ones, they voluntarily laid down their office. So that, after a short interregnum, during which M. Manlius, Ser. Sulpitius, and L. Valerius Potitus, governed the republic, six new military tribunes L. Papirius, C. Sergius, L. Æmilius, L. Menenius, L. Valerius, and C. Cornelius, were chosen for the ensuing year, which was spent in works of peace. A temple, which had been vowed to Mars during the war with the Gauls, was built, and consecrated by T. Quinctius, who presided over the affairs of religion. As there had hitherto been but few Roman tribes beyond the Tiber which had a right of suffrage in the comitia, four new ones were added, under the name of the *Stellatina*, *Tramontina*, *Sabatina*, and *Arniensis*; so that the tribes were now in all 25, which enjoyed the same rights and privileges.

147 Unbounded power conferred on Camillus.

The expectation of an approaching war induced the centuries to choose Camillus one of the military tribunes for the next year. His colleagues were Ser. Cornelius, Q. Servilius, L. Quinctius, L. Horatius, and P. Valerius. As all these were men of moderation, they agreed to invest Camillus with the sole management of affairs in time of war; and accordingly in full senate transferred all their power into his hands; so that he became in effect dictator. It had been already determined

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mined in the senate to turn the arms of the republic against the Hetrurians; but, upon advice that the Antiates had entered the Pomptin territory, and obliged the Romans who had taken possession of it to retire, it was thought necessary to humble them before the republic engaged in any other enterprise. The Antiates had joined the Latins and Hernici near Satricum; so that the Romans, being terrified at their prodigious numbers, shewed themselves very backward to engage: which Camillus perceiving, he instantly mounted his horse, and riding through all the ranks of the army, encouraged them by a proper speech after which he dismounted, took the next standard-bearer by the hand, led him towards the enemy, and cried out, *Soldiers, advance.* The soldiery were ashamed not to follow a general who exposed himself to the first attack; and therefore, having made a great shout, they fell upon the enemy with incredible fury. Camillus, in order to increase their eagerness still more, commanded a standard to be thrown into the middle of the enemy's battalions; which made the soldiers, who were fighting in the first ranks, exert all the resolution they could to recover it. The Antiates, not being able any longer to make head against the Romans, gave way, and were entirely defeated. The Latins and Hernici separated from the Volsci, and returned home. The Volsci, seeing themselves thus abandoned by their allies, took refuge in the neighbouring city of Satricum; which Camillus immediately invested, and took by assault. The Volsci threw down their arms, and surrendered at discretion. He then left his army under the command of Valerius; and returned to Rome to solicit the consent of the senate, and to make the necessary preparations for undertaking the siege of Antium.

148 who gives the Antiates, &c. a great defeat.

149 His other successes.

But, while he was proposing this affair to the senate, deputies arrived from Nepet and Sutrium, two cities in alliance with Rome in the neighbourhood of Hetruria, demanding succours against the Hetrurians, who threatened to besiege these two cities, which were the keys of Hetruria. Hereupon the expedition against Antium was laid aside, and Camillus commanded to hasten to the relief of the allied cities, with the troops which Servilius had kept in readiness at Rome in case of an emergency. Camillus immediately set out for the new war: and, upon his arrival before Sutrium, found that important place not only besieged, but almost taken, the Hetrurians having made themselves masters of some of the gates, and gained possession of all the avenues leading to the city. However, the inhabitants no sooner heard that Camillus was come to their relief, but they recovered their courage, and, by barricadoes made in the streets, prevented the enemy from making themselves masters of the whole city. Camillus in the mean time having divided his army into two bodies, ordered Valerius to march round the walls, as if he designed to scale them, while he with the other undertook to charge the Hetrurians in the rear, force his way into the city, and shut up the enemy between the besieged and his troops. The Romans no sooner appeared but the Hetrurians betook themselves to a disorderly flight through a gate which was not invested. Camillus's troops made a dreadful slaughter of them within the city, while Valerius put great numbers of them to the sword without the walls. From reconquering Sutrium, Camillus hastened to the relief of Nepet. But that city being better affected to the Hetrurians than to the Romans, had voluntarily submitted to the former. Wherefore Camillus, having invested it with his whole army, took it by assault, put all the Hetrurian soldiers without distinction to the sword, and condemned the authors of the revolt to die by the axes of the lictors. Thus ended Camillus's military tribuneship, in which he acquired no less reputation than he had done in the most glorious of his dictatorships.

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150 Ambition of M. Manlius.

In the following magistracy of six military tribunes, a dangerous sedition is said to have taken place through the ambition of Marcus Manlius, who had saved the Capitol from the Gauls in the manner already related. Though this man had pride enough to despise all the other great men in Rome, yet he envied Camillus, and took every opportunity of magnifying his own exploits beyond those of the dictator. But not finding such a favourable reception from the nobility as he desired, he concerted measures with the tribunes of the people, and strove to gain the affections of the multitude. Not content with renewing the proposal for the distribution of conquered lands, he also made himself an advocate for insolvent debtors, of whom there was now a great number, as most of the lower class had been obliged to borrow money in order to rebuild their houses. The senate, alarmed at this opposition, created A. Cornelius Cossus dictator, for which the war with the Volsci afforded them a fair pretence. Manlius, however, still continued to inflame the people against the patricians. Besides the most unbounded personal generosity, he held assemblies at his own house (in the citadel), where he confidently gave out that the senators, not content with being the possessors of those lands which ought to have been equally divided among all the citizens, had concealed with an intent to appropriate it to their own use, all the gold which was to have been paid to the Gauls, and which would alone be sufficient to discharge the debts of all the poor plebeians; and he moreover promised to show in due time where this treasure was concealed. For this assertion he was brought before the dictator; who commanded him to discover where the pretended treasure was, or to confess openly before the whole assembly that he had slandered the senate.—Manlius replied, that the dictator himself, and the principal persons in the senate, could only give the proper intelligence of this treasure, as they had been the most active in securing it. Upon this he was committed to prison; but the people made such disturbance, that the senate were soon after fain to release him. By this he was emboldened to continue his former practices; till at last the senate gave an order to the military tribunes to take care that the commonwealth suffered no detriment from the pernicious projects of Marcus Manlius, and even gave them authority to assassinate him, if they found it necessary so to do. At last, however, he was publicly accused of aspiring to be king; however, the people, it is said, were so struck with gratitude, on account of his having delivered the Capitol from the Gauls, that they could not resolve to condemn him. But the military tribunes, who, it seems, were bent on his destruction, having appointed the assembly to be held without the city, there obtained their wish. Manlius was thrown headlong from the Capitol itself: it was thenceforth decreed that no patrician should dwell in the Capitol or citadel; and the Manlian family resolved that

151 who is condemned and executed.

Rome.

that no member of it should ever afterwards bear the prænomen of *Marcus*. No sooner was Manlius dead, however, than the people lamented his fate; and because a plague broke out soon after, they imputed it to the anger of the gods on account of the destruction of the hero who had saved the state (A).

The Romans, having now triumphed over the Sabines, the Etrurians, the Latins, the Hernici, the Æqui, and the Volscians, began to look for greater conquests. They accordingly turned their arms against the Samnites, a people about 100 miles east from the city, descended from the Sabines, and inhabiting a large tract of southern Italy, which at this day makes a considerable part of the kingdom of Naples. Valerius Corvus and Cornelius were the two consuls, to whose care it first fell to manage this dreadful contention between the rival states.

152 War with the Samnites.

Valerius was one of the greatest commanders of his time; he was surnamed Corvus, from a strange circumstance of being assisted by a crow in a single combat, in which he fought and killed a Gaul of a gigantic stature. To his colleague's care it was consigned to lead an army to Samnium, the enemy's capital; while Corvus was sent to relieve Capua, the capital of the Campanians. The Samnites were the bravest men the Romans had ever yet encountered, and the contention between the two nations was managed on both sides with the most determined resolution. But the fortune of Rome prevailed; the Samnites at length fled, averring, that they were not able to withstand the fierce looks and the fire-darting eyes of the Romans. The other consul, however, was not at first so fortunate; for having unwarily led his army into a defile, he was in danger of being cut off, had not Decius, a tribune of the army, possessed himself of a hill which commanded the enemy: So that the Samnites, being attacked on either side, were defeated with great slaughter, no less than 30,000 of them being left dead upon the field of battle.

Some time after this victory, the soldiers who were stationed at Capua mutinying, forced Quintius, an old and eminent soldier, who was then residing in the country, to be their leader; and, conducted by their rage more than their general, came within eight miles of the city. So terrible an enemy, almost at the gates, not a little alarmed the senate; who immediately created Valerius Corvus dictator, and sent him forth with another army to oppose them. The two armies were now drawn up against each other, while fathers and sons beheld themselves preparing to engage in opposite causes; but Corvus knowing his influence among the soldiery, instead of going forward to meet the mutineers in an hostile manner, went with the most cordial friendship to embrace and expostulate with his old acquaintances. His conduct had the desired effect. Quintius, as their speaker, only desired to have their defection from their duty forgiven; and as for himself, as he was innocent of their conspiracy, he had no reason to solicit pardon for his offences.

A war between the Romans and the Latins followed soon after; but as their habits, arms, and language, were the same, the most exact discipline was necessary to prevent confusion in the engagement. Orders, therefore, were issued by Manlius the consul, that no soldier should leave his ranks upon whatever provocation; and that he should be certainly put to death who should offer to do otherwise. With these injunctions, both armies were drawn out in array, and ready to begin; when Metius, the general of the enemy's cavalry, pushed forward from his lines, and challenged any knight in the Roman army to single combat. For some time there was a general pause, no soldier offering to disobey his orders, till Titus Manlius the consul's own son, burning with shame to see the whole body of the Romans intimidated, boldly sallied out against his adversary. The soldiers on both sides for a while suspended the general engagement to be spectators of this fierce encounter. Manlius killed his adversary; and then despoiling him of his armour, returned in triumph to his father's tent, where he was preparing and giving orders relative to the engagement. Howsoever he might have been applauded by his fellow-soldiers, being as yet doubtful of the reception he should find from his father, he came, with hesitation, to lay the enemy's spoils at his feet, and with a modest air insinuated, that what he did was entirely from a spirit of hereditary virtue. But he was soon dreadfully made sensible of his error, when his father, turning away, ordered him to be led publicly forth before the army, and there to have his head struck off on account of his disobeying orders. The whole army was struck with horror at this unnatural mandate: fear for a while kept them in suspense; but when they saw their young champion's head struck off, and his blood streaming upon the ground, they could no longer contain their execrations and their groans. His dead body was carried forth without the camp, and being adorned with the spoils of the vanquished enemy, was buried with all the pomp of military distress.

153 A bloody battle with the Latins.

In the mean time, the battle joined with mutual fury; and as the two armies had often fought under the same leaders, they combated with all the animosity of a civil war. The Latins chiefly depended on their bodily strength; the Romans, on their invincible courage and conduct. Forces so nearly matched seemed only to require the protection of their deities to turn the scale of victory; and, in fact, the augurs had foretold, that whatever part of the Roman army should be distressed, the commander of that part should devote himself for his country, and die as a sacrifice to the immortal gods. Manlius commanded the right wing, and Decius led on the left. Both sides fought for some time with doubtful success, as their courage was equal; but, after a time, the left wing of the Roman army began to give

(A) The above accounts are exactly conformable to what is to be found in the best Latin histories; nevertheless they are far from being reckoned universally authentic. Mr Hooke, in his annotations on the death of M. Manlius, has given very strong reasons against believing either that Camillus rescued the gold from the Gauls, or that Manlius was condemned. See *Hooke's Roman History*, vol. ii. p. 326, *et seq.*

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give ground. It was then that Decius, who commanded there, resolved to devote himself for his country, and to offer his own life as an atonement to save his army. Thus determined, he called out to Manlius with a loud voice, and demanded his instructions, as he was the chief pontiff, how to devote himself, and the form of the words he should use. By his directions, therefore, being clothed in a long robe, his head covered, and his arms stretched forward, standing upon a javelin, he devoted himself to the celestial and infernal gods for the safety of Rome. Then arming himself, and mounting on horseback, he drove furiously into the midst of the enemy, carrying terror and consternation wherever he came, till he fell covered with wounds. In the mean time, the Roman army considered his devoting himself in this manner as an assurance of success; nor was the superstition of the Latins less powerfully influenced by his resolution; a total rout began to ensue: the Romans pressed them on every side; and so great was the carnage, that scarce a fourth part of the enemy survived the defeat. This was the last battle of any consequence that the Latins had with the Romans: they were forced to beg a peace upon hard conditions; and two years after, their strongest city, Pædum, being taken, they were brought under an entire submission to the Roman power.

154 who are totally defeated and subdued.

A signal disgrace which the Romans sustained about this time in their contest with the Samnites, made a pause in their usual good fortune, and turned the scale for a while in the enemy's favour. The senate having denied the Samnites peace, Pontius their general was resolved to gain by stratagem what he had frequently lost by force. Accordingly, leading his army into a defile called *Claudium*, and taking possession of all its outlets, he sent 10 of his soldiers, habited like shepherds, with directions to throw themselves in the way the Romans were to march. The Roman consul met them, and taking them for what they appeared, demanded the route the Samnite army had taken; they, with seeming indifference, replied, that they were going to Luceria, a town in Apulia, and were then actually besieging it. The Roman general, not suspecting the stratagem that was laid against him, marched directly by the shortest road, which lay through the defiles, to relieve the city; and was not undeceived till he saw his army surrounded, and blocked up on every side. Pontius thus having the Romans entirely in his power, first obliged the army to pass under the yoke, having been previously stripped of all but their garments; he then stipulated that they should wholly quit the territories of the Samnites, and that they should continue to live upon terms of former confederacy. The Romans were constrained to submit to this ignominious treaty, and marched into Capua disarmed and half naked. When the army arrived at Rome, the whole city was most surprisingly afflicted at their shameful return; nothing but grief and resentment was to be seen, and the whole city was put into mourning.

But this was a transitory calamity; the war was carried on as usual for many years: the power of the Samnites declining every day, while that of the Romans continually increased. Under the conduct of Papirius Cursor, who was at different times consul and dictator, repeated triumphs were gained. Fabius Maximus also had his share in the glory of conquering them; and Decius, the son of that Decius whom we saw devoting himself for his country about 40 years before, followed the example of his father, and rushed into the midst of the enemy, imagining that he could save the lives of his countrymen with the loss of his own.

155 Pyrrhus king of Epirus invited into Italy by the Tarentines.

The success of the Romans against the Samnites alarmed all Italy. The Tarentines in particular, who had long plotted underhand against the republic, now openly declared themselves; and invited into Italy Pyrrhus king of Epirus, in hopes of being able by his means to subdue the Romans. The offer was readily accepted by that ambitious monarch, who had nothing less in view than the conquest of all Italy.—Their ambassadors carried magnificent presents for the king, with instructions to acquaint him, that they only wanted a general of fame and experience; and that, as for troops, they could themselves furnish a numerous army of 20,000 horse and 350,000 foot, made up of Lucanians, Messapians, Samnites, and Tarentines. As soon as the news of this deputation were brought to the Roman camp, Æmilius, who had hitherto made war on the Tarentines but gently, in hopes of adjusting matters by way of negociation, took other measures, and began to commit all sorts of hostilities. He took cities, stormed castles, and laid the whole country waste, burning and destroying all before him. The Tarentines brought their army into the field; but Æmilius soon obliged them to take refuge within their walls. However, to induce them to lay aside the design of receiving Pyrrhus, he used the prisoners he had taken with great moderation, and even sent them back without ransom. These highly extolled the generosity of the consul, insomuch that many of the inhabitants were brought over to the Roman party, and they all began to repent of their having rejected a peace and sent for Pyrrhus.

But, in the mean time, the Tarentine ambassadors arriving in Epirus, pursuant to the powers they had received, made an absolute treaty with the king; who immediately sent before him the famous Cyneas, with 3000 men, to take possession of the citadel of Tarentum. This eloquent minister soon found means to depose Agis, whom the Tarentines had chosen to be their general and the governor of the city, though a sincere friend to the Romans. He likewise prevailed upon the Tarentines to deliver up the citadel into his hands; which he no sooner got possession of, than he dispatched messengers to Pyrrhus, soliciting him to hasten his departure for Italy. In the mean time, the consul Æmilius, finding that he could not attempt anything with success against the Tarentines this campaign, resolved to put his troops into winter quarters in Apulia, which was not far from the territory of Tarentum, that was soon to become the seat of the war. As he was obliged to pass through certain defiles, with the sea on one side and high hills on the other, he was there attacked by the Tarentines and Epirots from great numbers of barks fraught with balistæ (that is, engines for throwing stones of a vast weight), and from the hills, on which were posted a great many archers and slingers. Hereupon Æmilius placed the Tarentine prisoners between him and the enemy; which the Tarentines perceiving, soon left off molesting the Romans, out of compassion to their own countrymen; so that the Romans arrived safe in Apulia, and there took up their winter quarters.

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The next year Æmilius was continued in the command of his own troops, with the title of *proconsul;* and was ordered to make war upon the Salentines, who had declared for the Tarentines. The present exigence of affairs obliged the Romans to enlist the proletarii, who were the meanest of the people, and therefore by way of contempt called *proletarii*, as being thought incapable of doing the state any other service than that of peopling the city, and stocking the republic with subjects. Hitherto they had never been suffered to bear arms; but were now, to their great satisfaction, enrolled as well as others. In the mean time Pyrrhus arrived at Tarentum, having narrowly escaped shipwreck; and being conducted into the city by his faithful Cyneas, was received there with loud acclamations.

156 Pyrrhus obliges the Tarentines to learn the art of war.

The Tarentines, who were entirely devoted to their pleasures, expected that he should take all the fatigues of the war on himself, and expose only his Epirots to danger. And indeed Pyrrhus for some days dissembled his design, and suffered the Tarentines to indulge without restraint in their usual diversions. But his ships, which had been dispersed all over the Ionian sea, arriving one after another, and with them the troops which he had put on board at Epirus, he began to reform the disorders that prevailed in the city. The theatre was the place to which the idle Tarentines resorted daily in great numbers, and where the incendiaries stirred up the people to sedition with their harangues: he therefore caused it to be shut up, as he did likewise the public gardens, porticos, and places of exercise, where the inhabitants used to entertain themselves with news, and speak with great freedom of their governors, censuring their conduct, and settling the government according to their different humours, which occasioned great divisions, and rent the city into various factions. As they were a very voluptuous and indolent people, they spent whole days and nights in feasts, masquerades, plays, &c. These, therefore, Pyrrhus absolutely prohibited, as no less dangerous than the assemblies of prating politicians. They were utter strangers to military exercises, and the art of handling arms; but Pyrrhus having caused an exact register to be made of all the young men who were fit for war, picked out the strongest amongst them, and incorporated them among his own troops, saying, that he would take it upon himself to give them courage. He exercised them daily for several hours; and on that occasion behaved with an inexorable severity, inflicting exemplary punishment on such as did not attend or failed in their duty. By these wise measures he prevented seditions among the citizens, and inured their youth to military discipline; and because many, who had not been accustomed to such severity and rigour, withdrew from their native country, Pyrrhus, by a public proclamation, declared all those capitally guilty who should attempt to abandon their country, or absent themselves from the common musters.

The Tarentines, being now sensible that Pyrrhus was determined to be their master, began loudly to complain of his conduct; but he, being informed of whatever passed among them by his spies, who insinuated themselves into all companies, privately dispatched the most factious, and sent those whom he suspected, under various pretences, to his son's court in Epirus.

In the mean time, P. Valerius Lævinus, the Roman consul, entering the country of the Lucanians, who were in alliance with the Tarentines, committed great ravages there; and having taken and fortified one of their castles, waited in that neighbourhood for Pyrrhus. The king, though he had not yet received any succours from the Samnites, Messapians, and other allies of the Tarentines, thought it highly dishonourable to continue shut up in a city, while the Romans were ravaging the country of his friends. He therefore took the field with the troops he had brought with him from Epirus, some recruits of Tarentum, and a small number of Italians. But before he began hostilities, he wrote a letter to Lævinus, commanding him to disband his army; and on his refusal, immediately marched towards those parts where Lævinus was waiting for him. The Romans were encamped on the hither side of the river Siris; and Pyrrhus appearing on the opposite bank, made it his first business to reconnoitre the enemy's camp in person, and see what appearance they made. With this view he crossed the river, attended by Megacles, one of his officers and chief favourites; and having observed the consul's intrenchments, the manner in which he had posted his advanced guards, and the good order of his camp, he was greatly surprised; and addressing Megacles, "These people (said he) are not such barbarians as we take them to be: let us try them before we condemn them." On his return, he changed his resolution of attacking them; and, shutting himself up in his intrenchments, waited for the arrival of the confederate troops. In the mean time, he posted strong guards along the river, to prevent the enemy from passing it, and continually sent out scouts to discover the designs, and watch the motions of the consul. Some of these being taken by the advanced guards of the Romans, the consul himself led them through his camp, and having shewed them his army, sent them back to the king, telling them, that he had many other troops to show them in due time.

157 His first battle with the Romans.

Lævinus being determined to draw the enemy to a battle before Pyrrhus received the reinforcements he expected, having harangued his troops, marched to the banks of the Siris; and there drawing up his infantry in battalia, ordered the cavalry to file off, and march a great way about, in order to find a passage at some place not defended by the enemy. Accordingly, they passed the river without being observed; and falling upon the guards which Pyrrhus had posted on the banks over-against the consular army, gave the infantry an opportunity of crossing the river on bridges which Lævinus had prepared for that purpose. But before they got over, Pyrrhus, hastening from his camp, which was at some distance from the river, hoped to cut the Roman army in pieces while they were disordered with the difficulties of passing the river, and climbing up the steep banks; but the cavalry covering the infantry, and standing between them and the Epirots, gave them time to form themselves on the banks of the river. On the other hand, Pyrrhus drew up his men as fast as they came from the camp, and performed such deeds of valour, that the Romans thought him worthy of the great reputation he had acquired.

As the cavalry alone had hitherto engaged, Pyrrhus, who confided most in his infantry, hastened back to the camp, in order to bring them to the charge; but took two precautions before he began the attack: the first was, to ride through the ranks, and show himself to the whole army; for his horse having been killed under him in the first onset, a report had been spread that he was

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slain: the second was, to change his habit and helmet with Megacles; for having been known in the engagement of the horse by the richness of his attire and armour, many of the Romans had aimed at him in particular, so that he was with the utmost difficulty taken and saved, after his horse had been killed under him. Thus disguised, he led his phalanx against the Roman legions, and attacked them with incredible fury. Lævinus sustained the shock with great resolution, so that the victory was for many hours warmly disputed. The Romans gave several times way to the Epirots, and the Epirots to the Romans; but both parties rallied again and were brought back to the charge by their commanders. Megacles, in the attire and helmet of Pyrrhus, was in all places, and well supported the character he had assumed. But his disguise at last proved fatal to him: for a Roman knight, by name *Dexter*, taking him for the king, followed him wherever he went; and having found an opportunity of discharging a blow at him, struck him dead on the spot, stripped him of his helmet and armour, and carried them in triumph to the consul, who by showing to the Epirots the spoils of their king, so terrified them, that they began to give ground. But Pyrrhus, appearing bare-headed in the first files of his phalanx, and riding through all the lines undeceived his men, and inspired them with new courage.

The advantage seemed to be pretty equal on both sides, when Lævinus ordered his cavalry to advance; which Pyrrhus observing, drew up 20 elephants in the front of his army, with towers on their backs full of bowmen. The very sight of those dreadful animals chilled the bravery of the Romans, who had never before seen any. However, they still advanced, till their horses, not being able to bear the smell of them, and frightened at the strange noise they made, either threw their riders, or carried them on full speed in spite of their utmost efforts. In the mean time, the archers, discharging showers of darts from the towers, wounded several of the Romans in that confusion, while others were trod to death by the elephants. Notwithstanding the disorder of the cavalry, the legionaries still kept their ranks, and could not be broken, till Pyrrhus attacked them in person at the head of the Thessalian horse. The onset was so furious, that they were forced to yield, and retire in disorder. The king of Epirus restrained the ardour of his troops, and would not suffer them to pursue the enemy: an elephant, which had been wounded by a Roman soldier named *Minucius*, having caused a great disorder in his army, this accident favoured the retreat of the Romans, and gave them time to repass the river, and take refuge in Apulia. The Epirot remained master of the field, and had the pleasure to see the Romans fly before him: but the victory cost him dear, a great number of his best officers and soldiers having been slain in the battle; whence he was heard to say after the action, that he was both conqueror and conquered, and that if he gained such another victory, he should be obliged to return to Epirus alone.

158 The Romans defeated.

His first care after the action was to bury the dead, with which the plain was covered; and herein he made no distinction between the Romans and his own Epirots. In viewing the bodies of the former, he observed, that none of them had received dishonourable wounds; that they had all fallen in the posts assigned them, still held their swords in their hands, and showed, even after death, a certain martial air and fierceness in their faces; and on this occasion it was that he uttered those famous words: "O that Pyrrhus had the Romans for his soldiers, or the Romans Pyrrhus for their leader! together, we should subdue the whole world."

159 Pyrrhus reduces several towns.

The king of Epirus understood the art of war too well not to reap what advantage he could from his victory. He broke into the countries in alliance with the Romans, plundered the lands of the republic, and made incursions even into the neighbourhood of Rome. Many cities opened their gates to him, and in a short time he made himself master of the greatest part of Campania. While he was in that fruitful province, subsisting his troops there at the expence of the Romans, he was joined by the Samnites, Lucanians, and Messapians, whom he had so long expected. After having reproached them for their delay, he gave them a good share of the spoils he had taken from the enemy; and having by this means gained their affections, he marched without loss of time to lay siege to Capua: but Lævinus, having already received a reinforcement of two legions, threw some troops into the city; which obliged Pyrrhus to drop his design, and, leaving Capua, to march straight to Naples. Lævinus followed him, harassing his troops on their march; and at length, by keeping his army in the neighbourhood, forced him to give over all thoughts of making himself master of that important city. The king then, all on a sudden, took his route towards Rome by the Latin way, surprised Fregellæ, and, marching through the country of the Hernici, sat down before Præneste. There, from the top of a hill, he had the pleasure of seeing Rome; and is said to have advanced so near the walls, that he drove a cloud of dust into the city. But he was soon forced to retire by the other consul T. Coruncanius, who, having reduced Hetruria, was just then returned with his victorious army to Rome. The king of Epirus, therefore, having no hopes of bringing the Hetrurians into his interest, and seeing two consular armies ready to fall upon him, raised the siege of Præneste, and hastened back into Campania; where, to his great surprise, he found Lævinus with a more numerous army than that which he had defeated on the banks of the Siris. The consul went to meet him, with a design to try the fate of another battle; which Pyrrhus being unwilling to decline, drew up his army, and, to strike terror into the Roman legions, ordered his men to beat their bucklers with their lances, and the leaders of the elephants to force them to make a hideous noise. But the noise was returned with such an universal shout by the Romans, that Pyrrhus, thinking so much alacrity on the part of the vanquished too sure a prognostic of victory, altered his mind; and, pretending that the auguries were not favourable, retired to Tarentum, and put an end to the campaign.

160 He inclines to peace.

While Pyrrhus continued quiet at Tarentum, he had time to reflect on the valour and conduct of the Romans; which made him conclude, that the war in which he was engaged must end in his ruin and disgrace, if not terminated by an advantageous peace. He was therefore overjoyed when he heard that the senate had determined to send an honourable embassy to him, not doubting but their errand was to propose terms

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terms of peace. The ambassadors were three men of distinguished merit; to wit, Cornelius Dolabella, who was famous for the signal victory he had gained over the Senones, Fabricius, and Æmilius Pappus, who had been his colleague in the consulate two years before. When they were admitted to an audience, the only thing they demanded was a surrender of the prisoners, either by the way of exchange, or at such a ransom as should be agreed on; for Pyrrhus, in the late battle, had made 1800 prisoners, most of them Roman knights and men of distinction in the republic. They had fought with great bravery, till their horses, frightened with the roaring of the king's elephants, had either thrown them, or obliged them to dismount; by which unforeseen accident, they had fallen into the enemy's hands. The senate, therefore, pitying the condition of those brave men, had determined, contrary to their custom, to redeem them. Pyrrhus was greatly surprised and disappointed when he found that they had no other proposals to make; but, concealing his thoughts, he only answered, that he would consider of it, and let them know his resolution. Accordingly, he assembled his council: but his chief favourites were divided in their opinions. Milo, who commanded in the citadel of Tarentum, was for coming to no composition with the Romans; but Cyneas, who knew his master's inclination, proposed not only sending back the prisoners without ransom, but dispatching an embassy to Rome to treat with the senate of a lasting peace. His advice was approved, and he himself appointed to go on that embassy. After these resolutions, the king acquainted the ambassadors, that he intended to release the prisoners without ransom, since he had already riches enough, and desired nothing of the republic but her friendship. Afterwards he had several conferences with Fabricius, whose virtue he had tried with mighty offers of riches and grandeur; but finding him proof against all temptations, he resolved to try whether his intrepidity and courage were equal to his virtue. With this view, he caused an elephant to be placed behind a curtain in the hall where he received the Roman ambassador. As Fabricius had never seen one of those beasts, the king, taking a turn or two in the hall with him, brought him within the elephant's reach, and then caused the curtain to be drawn all on a sudden, and that monstrous animal to make his usual noise, and even lay his trunk on Fabricius's head. But the intrepid Roman, without betraying the least fear or concern, "Does the great king (said he, with surprising calmness), who could not stagger me with his offers, think to frighten me with the braying of a beast?" Pyrrhus, astonished at his immovable constancy, invited him to dine with him: and on this occasion it was, that the conversation turning upon the Epicurean philosophy, Fabricius made that celebrated exclamation, "O that Pyrrhus, both for Rome's sake and his own, had placed his happiness in the boasted indolence of Epicurus."

Every thing Pyrrhus heard or saw of the Romans increased his earnestness for peace. He sent for the three ambassadors, released 200 of the prisoners without ransom, and suffered the rest, on their parole, to return to Rome to celebrate the Saturnalia, or feasts of Saturn, in their own families. Having by this obliging behaviour gained the good will of the Roman ambassadors, he sent Cyneas to Rome, almost at the same time that they left Tarentum. The instructions he gave this faithful minister, were, to bring the Romans to grant these three articles: 1. That the Tarentines should be included in the treaty made with the king of Epirus. 2. That the Greek cities in Italy should be suffered to enjoy their laws and liberties. 3. That the republic should restore to the Samnites, Lucanians, and Bruttians, all the places she had taken from them. Upon these conditions, Pyrrhus declared himself ready to forbear all further hostilities, and conclude a lasting peace. With these instructions Cyneas set out for Rome; where, partly by his eloquence, partly by rich presents to the senators and their wives, he soon gained a good number of voices. When he was admitted into the senate, he made a harangue worthy of a disciple of the great Demosthenes; after which, he read the conditions Pyrrhus proposed, and, with a great deal of eloquence, endeavouring to show the reasonableness and moderation of his master's demands, asked leave for Pyrrhus to come to Rome to conclude and sign the treaty. The senators were generally inclined to agree to Pyrrhus's terms; but nevertheless, as several senators were absent, the determination of the affair was postponed to the next day; when Appius Claudius, the greatest orator and most learned civilian in Rome, old and blind as he was, caused himself to be carried to the senate, where he had not appeared for many years; and there, partly by his eloquence, partly by his authority, so prepossessed the minds of the senators against the king of Epirus, and the conditions he offered, that, when he had done speaking, the conscript fathers unanimously passed a decree, the substance of which was, That the war with Pyrrhus should be continued: that his ambassador should be sent back that very day; that the king of Epirus should not be permitted to come to Rome; and that they should acquaint his ambassador, that Rome would enter into no treaty of peace with his master till he had left Italy.

161 The Romans refuse to treat.

Cyneas, surprised at the answer given him, left Rome the same day, and returned to Tarentum, to acquaint the king with the final resolution of the senate. Pyrrhus would have willingly concluded a peace with them upon honourable terms; but, as the conditions they offered were not by any means consistent with the reputation of his arms, he began without loss of time, to make all due preparations for the next campaign. On the other hand, the Romans having raised to the consulate P. Sulpicius Saverrio, and P. Decius Mus, dispatched them both into Apulia, where they found Pyrrhus encamped near a little town called *Asculum*. There the consuls, joining their armies, fortified themselves at the foot of the Appenines, having between them and the enemy a large deep stream which divided the plain. Both armies continued a great while on the opposite banks, before either ventured to pass over to attack the other. The Epirots allowed the Romans to cross the stream, and draw up on the plain. On the other hand, Pyrrhus placed his men likewise in order of battle in the same plain; and all the ancients do him the justice to say, that no commander ever understood better the art of drawing up an army and directing its motions. In the right wing he placed his Epirots and the Samnites; in his left the Lucanians, Bruttians, and Salentines; and his phalanx in the centre. The centre of the Roman army consisted of four legions, which were to engage

162 Another battle.

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gage the enemy's phalanx; on their wings were posted the light-armed auxiliaries and the Roman horse. The consuls, in order to guard their troops against the fury of the elephants, had prepared chariots, armed with long points of iron in the shape of forks, and filled with soldiers carrying firebrands, which they were directed to throw at the elephants, and by that means frighten them, and set their wooden towers on fire. These chariots were posted over against the king's elephants, and ordered not to stir till they entered upon action. To this precaution the Roman generals added another, which was, to direct a body of Apulians to attack Pyrrhus's camp in the heat of the engagement, in order to force it, or at least to draw off part of the enemy's troops to defend it. At length the attack began, both parties being pretty equal in number; for each of them consisted of about 40,000 men. The phalanx sustained, for a long time, the furious onset of the legions with incredible bravery: but at length being forced to give way, Pyrrhus commanded his elephants to advance, but not on the side where the Romans had posted their chariots; they marched round, and, falling upon the Roman horse, soon put them into confusion. Then the phalanx, returning with fresh courage to the charge, made the Roman legions in their turn give ground. On this occasion Decius was killed, so that one consul only was left to command the two Roman armies. But while all things seemed to favour Pyrrhus, the body of Apulians which we have mentioned above, falling unexpectedly on the camp of the Epirots, obliged the king to dispatch a strong detachment to defend his intrenchments. Upon the departure of these troops, some of the Epirots, imagining that the camp was taken, began to lose courage, and retire; those who were next to them followed their example, and in a short time the whole army gave way. Pyrrhus having attempted several times in vain to rally his forces, returned to the charge with a small number of his friends and the most courageous of his officers. With these he sustained the fury of the victorious legions, and covered the retreat of his own men. But being, after a most gallant behaviour, dangerously wounded, he retired at last with his small band in good order, leaving the Romans masters of the field. As the sun was near setting, the Romans, being extremely fatigued, and a great number of them wounded, the consul Sulpicius, not thinking it advisable to pursue the enemy, sounded a retreat, repassed the stream, and brought his troops back to the camp. Sulpicius appeared in the field of battle the next day, with a design to bring the Epirots to a second engagement; but finding they had withdrawn in the night to Tarentum, he likewise retired, and put his troops into winter-quarters in Apulia.

163 Pyrrhus defeated, and dangerously wounded.

Both armies continued quiet in their quarters during winter; but early in the spring took the field anew.—The Romans were commanded this year by two men of great fame, whom they had raised to the consulate the second time: these were the celebrated C. Fabricius and Q. Æmilius Pappus; who no sooner arrived in Apulia, than they led their troops into the territory of Tarentum. Pyrrhus, who had received considerable reinforcements from Epirus, met them near the frontiers, and encamped at a small distance from the Roman army. While the consuls were waiting here for a favourable opportunity to give battle, a messenger from Nicias, the king's physician, delivered a letter to Fabricius; wherein the traitor offered to take off his master by poison, provided the consul would promise him a reward proportionable to the greatness of the service. The virtuous Roman, being filled with horror at the bare proposal of such a crime, immediately communicated the affair to his colleague; who readily joined with him in writing a letter to Pyrrhus, wherein they warned him, without discovering the criminal, to take care of himself, and be upon his guard against the treacherous designs of those about him. Pyrrhus, out of a deep sense of gratitude for so great a benefit, released immediately, without ransom, all the prisoners he had taken. But the Romans, disdaining to accept either a favour from an enemy, or a recompence for not committing the blackest treachery, declared, that they would not receive their prisoners but by way of exchange; and accordingly sent to Pyrrhus an equal number of Samnite and Tarentine prisoners.

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164 The king's physician offers to poison him but is discovered by the Romans.

As the king of Epirus grew every day more weary of a war which he feared would end in his disgrace, he sent Cyneas a second time to Rome, to try whether he could, with his artful harangues, prevail upon the conscript fathers to hearken to an accommodation, upon such terms as were consistent with his honour. But the ambassador found the senators steady in their former resolution, and determined not to enter into a treaty with his master till he had left Italy, and withdrawn from thence all his forces. This gave the king great uneasiness; for he had already lost most of his veteran troops and best officers, and was sensible that he should lose the rest if he ventured another engagement. While he was revolving these melancholy thoughts in his mind, ambassadors arrived at his camp from the Syracusans, Agrigentines, and Leontines, imploring the assistance of his arms to drive out the Carthaginians, and put an end to the troubles which threatened their respective states with utter destruction. Pyrrhus, who wanted only some honourable pretence to leave Italy, laid hold of this; and appointing Milo governor of Tarentum, with a strong garrison to keep the inhabitants in awe during his absence, he set sail for Sicily with 30,000 foot and 2500 horse, on board a fleet of 200 ships. Here he was at first attended with great success; but the Sicilians, disgusted at the resolution he had taken of passing over into Africa, and much more at the enormous exactions and extortions of his ministers and courtiers, had submitted partly to the Carthaginians and partly to the Mamertines. When Carthage heard of this change, new troops were raised all over Africa, and a numerous army sent into Sicily to recover the cities which Pyrrhus had taken. As the Sicilians daily deserted from him in crowds, he was no way in a condition, with his Epirots alone, to withstand so powerful an enemy; and therefore, when deputies came to him from the Tarentines, Samnites, Bruttians, and Lucanians, representing to him the losses they had sustained since his departure, and remonstrating, that, without his assistance, they must fall a sacrifice to the Romans, he laid hold of that opportunity to abandon the island, and return to Italy. His fleet was attacked by that of Carthage; and his army, after their landing, by the Mamertines. But Pyrrhus having, by his heroic bravery, escaped all danger, marched along the sea-shore, in order to reach Tarentum that way. As he passed through the country of the

165 Pyrrhus goes into Sicily.

166 He returns into Italy.

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the Locrians, who had not long before massacred the troops he had left there, he not only exercised all sorts of cruelty on the inhabitants, but plundered the temple of Proserpine to supply the wants of his army. The immense riches which he found there, were, by his order, sent to Tarentum by sea; but the ships that carried them being dashed against the rocks by a tempest, and the mariners all lost, this proud prince was convinced, says Livy, that the gods were not imaginary beings, and caused all the treasure, which the sea had thrown upon the shore, to be carefully gathered up, and replaced in the temple: nay, to appease the wrath of the angry goddess, he put all those to death who had advised him to plunder her temple. However, superstition made the ancients ascribe to this act of impiety all the misfortunes which afterwards befel that unhappy prince.

Pyrrhus at length arrived at Tarentum; but of the army he had carried into Sicily, he brought back into Italy only 2000 horse, and not quite 20,000 foot. He therefore reinforced them with the best troops he could raise in the countries of the Samnites, Lucanians, and Bruttians; and hearing that the two new consuls, Curius Dentatus and Cornelius Lentulus, had divided their forces, the one invading Lucania and the other Samnium, he likewise divided his army into two bodies, marching with the choice of his Epirots against Dentatus, in hopes of surprising him in his camp near Beneventum. But the consul having notice of his approach, went out of his intrenchments with a strong detachment of legionaries to meet him; repulsed his vanguard, put many of the Epirots to the sword, and took some of their elephants. Curius encouraged with this success, marched his army into the Taurasian fields, and drew it up in a plain which was wide enough for his troops, but too narrow for the Epirot phalanx, the phalangites being so crowded that they could not handle their arms without difficulty. But the king's eagerness to try his strength and skill with so renowned a commander, made him engage at that great disadvantage. Upon the first signal the action began; and one of the king's wings giving way, the victory seemed to incline to the Romans. But that wing where the king fought in person repulsed the enemy, and drove them back quite to their intrenchments. This advantage was in great part owing to the elephants; which Curius perceiving, commanded a corps de reserve, which he had posted near the camp, to advance and fall upon the elephants. These carrying burning torches in one hand, and their swords in the other, threw the former at the elephants, and with the latter defended themselves against their guides; by which means they were both forced to give way. The elephants being put to flight broke into the phalanx, close as it was, and there caused a general disorder; which was increased by a remarkable accident: for it is said, that a young elephant being wounded, and thereupon making a dreadful noise, the mother quitting her rank, and hastening to the assistance of her young one, put those who still kept their ranks into the utmost confusion. But, however that be, it is certain that the Romans obtained at last a complete victory. Orosius and Eutropius tell us that Pyrrhus's army consisted of 80,000 foot and 6000 horse, including his Epirots and allies; whereas the consular army was scarcely 20,000 strong. Those who exaggerate the king's loss say, that the number of the slain on his side amounted to 30,000 men; but others reduce it to 20,000. All writers agree, that Curius took 1200 prisoners and eight elephants. This victory, which was the most decisive Rome had ever gained, brought all Italy under subjection, and paved the way for those vast conquests which afterwards made the Romans masters of the whole known world.

167 Is utterly defeated by Curius Dentatus.

168 He abandons his allies.

Pyrrhus being no way in a condition, after the great loss he had sustained, to keep the field, retired to Tarentum, attended only by a small body of horse, leaving the Romans in full possession of his camp; which they so much admired, that they made it ever after a model to form theirs by. And now the king of Epirus resolved to leave Italy as soon as possible; but concealed his design, and endeavoured to keep up the drooping spirits of his allies, by giving them hopes of speedy succours from Greece. Accordingly he dispatched ambassadors into Ætolia, Illyricum, and Macedon, demanding supplies of men and money. But the answers from those courts not proving favourable, he forged such as might please those whom he was willing to deceive; and by this means supported the courage of his friends and kept his enemy in play. When he could conceal his departure no longer, he pretended to be on a sudden in a great passion at the dilatoriness of his friends in sending him succours; and acquainted the Tarentines, that he must go and bring them over himself. However, he left behind him a strong garrison in the citadel of Tarentum, under the command of the same Milo who had kept it for him during his stay in Sicily. In order to keep this governor in his duty, he is said to have made him a very strange present, viz. a chair covered with the skin of Nicias, the treacherous physician, who had offered Fabricius to poison his master. After all these disguises and precautions, Pyrrhus at last set sail for Epirus, and arrived safe at Acrocerauniun with 8000 foot and 500 horse; after having spent to no purpose six years in Italy and Sicily.

Though, from the manner in which Pyrrhus took his leave, his Italian allies had little reason to expect any further assistance from him, yet they continued to amuse themselves with vain hopes, till certain accounts arrived of his being killed at the siege of Argos, as has been related under the article Ermes. This threw the Samnites into despair: so that they put all to the issue of a general battle; in which they were defeated with such dreadful slaughter, that the nation is said to have been almost exterminated. This overthrow was soon followed by the submission of the Lucanians, Bruttians, Tarentines, Sarcinates, Picentes, and Salentines; so that Rome now became mistress of all the nations from the remotest parts of Hetruria to the Ionian sea, and from the Tyrrhenian sea to the Adriatic. All these nations, however, did not enjoy the same privileges. Some were entirely subject to the republic, and had no laws but what they received from thence; others retained their old laws and customs, but in subjection to the republic; some were tributary; and others allies, who were obliged to furnish troops at their own expence when the Romans required. Some had the privilege of Roman citizenship, their soldiers being incorporated in the legions; while others had a right of suffrage in the elections made by the centuries. These different degrees of honour, privileges, and liberty, were founded on the different terms granted to the conquered nations

169 who are subdued, and the Romans become masters of all Italy.

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nations when they surrendered, and were afterwards increased according to their fidelity and the services they did the republic.

170 Other conquests made by the Romans.

The Romans now became respected by foreign nations, and received ambassadors from Ptolemy Philadelphus king of Egypt, and from Apollonia a city of Macedon. Sensible of their own importance, they now granted protection to whatever nation requested it of them; but this not with a view of serving one party, but that they might have an opportunity of subjecting both. In this manner they assisted the Mamertines against Hiero king of Syracuse, which brought on the wars with the Carthaginians, which terminated in the total destruction of that ancient republic, as has been related under the article CARTHAGE. The interval between the first and second Punic wars was by the Romans employed in reducing the Boii and Ligurians, who had revolted. These were Gaulish nations, who had always been very formidable to the Romans, and now gave one of their consuls a notable defeat. However, he soon after sufficiently revenged himself, and defeated the enemy with great slaughter; though it was not till some time after, and with a good deal of difficulty, that they were totally subdued. During this interval also, the Romans seized on the islands of Sardinia, Corsica, and Malta; and in the year 219 B. C. the two former were reduced to the form of a province. Papirius, who had subdued Corsica, demanded a triumph; but not having interest enough to obtain it, he took a method entirely new to do himself justice. He put himself at the head of his victorious army, and marched to the temple of Jupiter Latialis, on the hill of Alba, with all the pomp that attended triumphant victors at Rome. He made no other alteration in the ceremony, but that of wearing a crown of myrtle instead of a crown of laurel, and this on account of his having defeated the Corsicans in a place where there was a grove of myrtles. The example of Papirius was afterwards followed by a great many generals to whom the senate refused triumphs.

171 Illyricum subdued.

The next year, when M. Æmilius Barbula and M. Junius Pera were consuls, a new war sprung up in a kingdom out of Italy. *Illyricum*, properly so called, which bordered upon Macedon and Epirus, was at this time governed by a woman named *Teuta*, the widow of King Agron, and guardian to her son Pinæus, who was under age. The success of her late husband against the Ætolians had flushed her to such a degree, that instead of settling the affairs of her ward in peace, she commanded her subjects to cruise along the coast, seize all the ships they met, take what places they could, and spare no nation. Her pirates had, pursuant to her orders, taken and plundered many ships belonging to the Roman merchants; and her troops were then besieging the island of Issa in the Adriatic, though the inhabitants had put themselves under the protection of the republic. Upon the complaints, therefore, of the Italian merchants, and to protect the people of Issa, the senate sent two ambassadors to the Illyrian queen, Lucius and Caius Coruncanus, to demand of her that she would restrain her subjects from infesting the sea with pirates. She answered them haughtily, that she could only promise that her subjects should not for the future attack the Romans in her name, and by public authority: "but as for any thing more, it is not customary with us (said she) to lay restraints on our subjects, nor will we forbid them to reap those advantages from the sea which it offers them." "Your customs then (replied the youngest of the ambassadors) are very different from ours. At Rome we make public examples of those subjects who injure others, whether at home or abroad. Teuta, we can, by our arms, force you to reform the abuses of your bad government." These unseasonable threatenings provoked Teuta, who was naturally a proud and imperious woman, to such a degree, that, without regard to the right of nations, she caused the ambassadors to be murdered on their return home.

When so notorious an infraction of the law of nations was known at Rome, the people demanded vengeance; and the senate having first honoured the manes of the ambassadors, by erecting, as was usual in such cases, statues three feet high to their memory, ordered a fleet to be equipped, and troops raised, with all possible expedition. But now Teuta, reflecting on the enormity of her proceedings, sent an embassy to Rome, assuring the senate that she had no hand in the murder of the ambassadors, and offering to deliver up to the republic those who had committed that barbarous assassination. The Romans being at that time threatened with a war from the Gauls, were ready to accept this satisfaction: but in the mean time the Illyrian fleet having gained some advantage over that of the Achæans, and taken the island of Corcyra near Epirus, this success made Teuta believe herself invincible, and forget the promise she had made to the Romans; nay, she sent her fleet to seize on the island of Issa, which the Romans had taken under their protection.

Hereupon the consuls for the new year, P. Posthumius Albinus and Cn. Fulvius Centumalus, embarked for Illyricum; Fulvius having the command of the fleet, which consisted of 100 galleys; and Posthumius of the land forces, which amounted to 20,000 foot, besides a small body of horse. Fulvius appeared with his fleet before Corcyra in the Adriatic, and was put in possession both of the island and city by Demetrius of Pharos, governor of the place for Queen Teuta. Nor was this all; Demetrius found means to make the inhabitants of Apollonia drive out the Illyrian garrison, and admit into their city the Roman troops. As Apollonia was one of the keys of Illyricum on the side of Macedon, the consuls, who had hitherto acted jointly, no sooner saw themselves in possession of it than they separated, the fleet cruising along the coast, and the army penetrating into the heart of the queen's dominions. The Andyœans, Parthini, and Atintanes, voluntarily submitted to Posthumius, being induced by the persuasions of Demetrius to shake off the Illyrian yoke. The consul being now in possession of most of the inland towns, returned to the coast, where, with the assistance of the fleet, he took many strongholds, among which was Nutria, a place of great strength, and defended by a numerous garrison; so that it made a vigorous defence, the Romans having lost before it a great many private men, several legionary tribunes, and one quæstor. However, this loss was repaired by the taking of 40 Illyrian vessels, which were returning home laden with booty. At length the Roman fleet appeared before Issa, which, by Teuta's order, was still closely besieged, notwithstanding the losses she had sustained. However, upon the approach of the Roman fleet, the

Illyrians

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Illyrians dispersed; but the Pharians, who served among them, followed the example of their countryman Demetrius, and joined the Romans, to whom the Issani readily submitted.

In the mean time Sp. Corvilius and Q. Fabius Maximus being raised to the consulate a second time, Posthumius was recalled from Illyricum, and refused a triumph for having been too prodigal of the Roman blood at the siege of Nutria. His colleague Fulvius was appointed to command the land forces in his room, in quality of proconsul. Hereupon Teuta, who had founded great hopes on the change of the consuls, retired to one of her strongholds called *Rhizon*, and from thence early in the spring sent an embassy to Rome. The senate refused to treat with her: but granted the young king a peace upon the following conditions: 1. That he should pay an annual tribute to the republic. 2. That he should surrender part of his dominions to the Romans. 3. That he should never suffer above three of his ships of war at a time to sail beyond Lyssus, a town on the confines of Macedon and Illyricum. The places he yielded to the Romans in virtue of this treaty, were the islands of Corcyra, Issa, and Pharos, the city of Dyrrhachium, and the country of the Atintanes. Soon after Teuta, either out of shame, or compelled by a secret article of the treaty, abdicated the regency, and Demetrius succeeded her.

172 The Gauls of Insubria and Liguria subdued.

Before this war was ended, the Romans were alarmed by new motions of the Gauls, and the great progress which the Carthaginians made in Spain. At this time also the fears of the people were excited by a prophecy said to be taken out of the Sibylline books, that the Gauls and Greeks should one day be in possession of Rome. This prophecy, however, the senate found means to elude, as they pretended, by burying two Gauls and two Greeks alive, and then telling the multitude that the Gauls and Greeks were now in the possession of Rome. The difficulties which superstition had raised being thus surmounted, the Romans made vast preparations against the Gauls, whom they seem to have dreaded above all other nations. Some say that the number of forces raised by the Romans on this occasion amounted to no fewer than 800,000 men. Of this incredible multitude 248,000 foot and 26,000 horse were Romans or Campanians; nevertheless, the Gauls, with only 50,000 foot and 20,000 horse, forced a passage through Hetruria, and took the road towards Rome. Here they had the good fortune at first to defeat one of the Roman armies; but being soon after met by two others, they were utterly defeated, with the loss of more than 50,000 of their number. The Romans then entered their country; which they cruelly ravaged; but a plague breaking out in their army, obliged them to return home. This was followed by a new war, in which those Gauls who inhabited Insubria and Liguria were totally subdued, and their country reduced to a Roman province. These conquests were followed by that of Istria; Dimalum, a city of importance in Illyricum; and Pharos, an island in the Adriatic sea.

The second Punic war for some time retarded the conquests of the Romans, and even threatened their state with entire destruction; but Hannibal being at last recalled from Italy, and entirely defeated at Zama, they made peace upon such advantageous terms as gave them an entire superiority over that republic, which they not long after entirely subverted, as has been related in the history of CARTHAGE.

173 The Roman empire arrives at its full extent.

The successful issue of the second Punic war had greatly increased the extent of the Roman empire. They were now masters of all Sicily, the Mediterranean islands, and great part of Spain; and, through the dissensions of the Asiatic states with the king of Macedon, a pretence was now found for carrying their arms into these parts. The Gauls in the mean time, however, continued their incursions, but now ceased to be formidable; while the kings of Macedon, through misconduct, were first obliged to submit to a disadvantageous peace, and at last totally subdued (see MACEDON). The reduction of Macedon was soon followed by that of all Greece, either by the name of allies or otherwise: while Antiochus the Great, to whom Hannibal fled for protection, by an unsuccessful war, first gave the Romans a footing in Asia (see SYRIA). The Spaniards and Gauls continued to be the most obstinate enemies. The former, particularly, were rather exterminated than reduced; and even this required the utmost care and vigilance of Scipio Æmilianus, the conqueror of Carthage, to execute. See SPAIN and NUMANTIA.

Thus the Romans attained to a height of power superior to any other nation in the world; but now a sedition broke out, which we may say was never terminated but with the overthrow of the republic. This had its origin from Tiberius Sempronius Gracchus, descended from a family which, though plebeian, was as illustrious as any in the commonwealth. His father had been twice raised to the consulate, was a great general, and had been honoured with two triumphs. But he was still more renowned for his domestic virtues and probity, than for his birth or valour. He married the daughter of the first Africanus, said to be the pattern of her sex, and the prodigy of her age; and had by her several children, of whom three only arrived at maturity of age, Tiberius Gracchus, Caius Gracchus, and a daughter named *Sempronia*, who was married to the second Africanus. Tiberius, the eldest, was deemed the most accomplished youth in Rome, with respect to the qualities both of body and mind. His extraordinary talents were heightened by a noble air, an engaging countenance, and all those winning graces of nature which recommend merit. He made his first campaigns under his brother-in-law, and distinguished himself on all occasions by his courage, and by the prudence of his conduct. When he returned to Rome, he applied himself to the study of eloquence; and at 30 years old was accounted the best orator of his age. He married the daughter of Appius Claudius, who had been formerly consul and censor, and was then prince of the senate. He continued for some time in the sentiments both of his own and his wife's family, and supported the interests of the patricians; but without openly attacking the popular faction. He was the chief author and negociator of that shameful necessary peace with the Numantines; which the senate, with the utmost injustice, disannulled, and condemned the consul, the quæstor, and all the officers who had signed it, to be delivered up to the Numantines (see NUMANTIA). The people, indeed, out of esteem for Gracchus, would not suffer him to be sacrificed: but, however, he had just reason to complain, both of the senate and people, for

174 Sedition of the Gracchi.

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for passing so scandalous a decree against his general and himself, and breaking a treaty whereby the lives of so many citizens had been saved. But as the senate had chiefly promoted such base and iniquitous proceedings, he resolved in due time to show his resentment against the party which had contributed most to his disgrace.

In order to this, he stood for the tribuneship of the people; which he no sooner obtained, than he resolved to attack the nobility in the most tender part. They had usurped lands unjustly; cultivated them by slaves, to the great detriment of the public; and had lived for about 250 years in open defiance to the Licinian law, by which it was enacted that no citizen should possess more than 500 acres. This law Tib. Gracchus resolved to revive, and by that means revenge himself on the patricians. But it was not revenge alone which prompted him to embark in so dangerous an attempt. It is pretended, that his mother Cornelia animated him to undertake something worthy both of his and her family. The reproaches of his mother, the authority of some great men, namely of his father-in-law Appius Claudius, of P. Crassus the *pontifex maximus*, and of Mutius Scævola the most learned civilian in Rome, and his natural thirst after glory, joined with an eager desire of revenge, conspired to draw him into this most unfortunate scheme.

175 A new law proposed by Gracchus.

The law, as he first drew it up, was very mild: for it only enacted, that those who possessed more than 500 acres of land should part with the overplus; and that the full value of the said lands should be paid them out of the public treasury. The lands thus purchased by the public were to be divided among the poor citizens; and cultivated either by themselves or by freemen, who were upon the spot. Tiberius allowed every child of a family to hold 250 acres in his own name, over and above what was allowed to the father. Nothing could be more mild than this new law; since by the Licinian he might have absolutely deprived the rich of the lands they unjustly possessed, and made them accountable for the profits they had received from them during their long possession. But the rich patricians could not so much as bear the name of the *Licinian law*, though thus qualified. Those chiefly of the senatorial and equestrian order exclaimed against it, and were continually mounting the rostra one after another, in order to dissuade the people from accepting a law, which, they said, would raise disturbances, that might prove more dangerous than the evils which Tiberius pretended to redress by the promulgation of it. Thus the zealous tribune was obliged day after day to enter the lists with fresh adversaries; but he ever got the better of them both in point of eloquence and argument.

The people were charmed to hear him maintain the cause of the unfortunate with so much success, and bestowed on him the highest commendations. The rich therefore had recourse to violence and calumny, in order to destroy, or at least to discredit, the tribune. It is said they hired assassins to dispatch him; but they could not put their wicked design in execution, Gracchus being always attended to and from the rostra by a guard of about 4000 men. His adversaries therefore endeavoured to ruin his reputation by the blackest calumnies. They gave out that he aimed at monarchy; and published pretended plots laid for crowning him king. But the people, without giving ear to such groundless reports, made it their whole business to encourage their tribune, who was hazarding both his life and reputation for their sakes.

When the day came on which this law was to be accepted or rejected by the people assembled in the comitium, Gracchus began with haranguing the mighty crowd which an affair of such importance had brought together both from the city and country. In his speech he shewed the justice of the law with so much eloquence, made so moving a description of the miseries of the meaner sort of people, and at the same time set forth in such odious colours the usurpation of the public lands, and the immense riches which the avarice and rapaciousness of the great had raked together, that the people, transported with fury, demanded with loud cries the billets, that they might give their suffrages. Then Gracchus, finding the minds of the citizens in that warmth and emotion which was necessary for the success of his design, ordered the law to be read.

176 Opposed by the tribune Octavius.

But unluckily one of the tribunes, by name *Marcus Octavius Cæcina*, who had always professed a great friendship for Gracchus, having been gained over by the patricians, declared against the proceedings of his friend and colleague; and pronounced the word which had been always awful in the mouth of a tribune of the people, *Veto*, "I forbid it." As Octavius was a man of an unblameable character, and had hitherto been very zealous for the publication of the law, Gracchus was greatly surprised at this unexpected opposition from his friend. However, he kept his temper, and only desired the people to assemble again the next day to hear their two tribunes, one in defence of, the other in opposition to, the law proposed. The people met at the time appointed; when Gracchus addressing himself to his colleague, conjured him by the mutual duties of their function, and by the bonds of their ancient friendship, not to oppose the good of the people, whom they were bound in honour to protect against the usurpation of the great; nay, taking his colleague aside, he addressed him thus, "Perhaps you are personally concerned to oppose this law; if so, I mean, if you have more than the five hundred acres, I myself, poor as I am, engage to pay you in money what you will lose in land." But Octavius, either out of shame, or from a principle of honour, continued immoveable in the party he had embraced.

Gracchus therefore had recourse to another expedient; which was to suspend all the magistrates in Rome from the execution of their offices. It was lawful for any tribune to take this step, when the passing of the law which he proposed was prevented by mere chicanery. After this, he assembled the people anew, and made a second attempt to succeed in his design. When all things were got ready for collecting the suffrages, the rich privately conveyed away the urns in which the tablets were kept. This kindled the tribune's indignation, and the rage of the people. The comitium was like to become a field of battle, when two venerable senators, Manlius and Fulvius, very seasonably interposed; and throwing themselves at the tribune's feet, prevailed upon him to submit his law to the judgment of the conscript fathers. This was making the senators judges in their own cause: but Gracchus thought the law so undeniably

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deniably just, that he could not persuade himself that they would reject it; and if they did, he knew that the incensed multitude would no longer keep any measures with them.

The senate, who wanted nothing but to gain time, affected delays, and came to no resolution. There were indeed some among them, who, out of a principle of equity, were for paying some regard to the complaints of the tribune, and for sacrificing their own interest to the relief of the distressed. But the far greater part would not hear of any composition whatsoever. Hereupon Gracchus brought the affair anew before the people, and earnestly intreated his colleague Octavius to drop his opposition, in compassion to the many unfortunate people for whom he intercceded. He put him in mind of their ancient friendship, took him by the hand, and affectionately embraced him. But still Octavius was inflexible. Hereupon Gracchus resolved to deprive Octavius of his tribuneship, since he alone obstinately withstood the desires of the whole body of so great a people. Having therefore assembled the people, he told them, that since his colleague and he were divided in opinion, and the republic suffered by their division, it was the province of the tribes assembled in comitia to re-establish concord among their tribunes. "If the cause I maintain (said he) be, in your opinion, unjust, I am ready to give up my seat in the college. On the contrary, if you judge me worthy of being continued in your service in this station, deprive him of the tribuneship who alone obstructs my wishes. As soon as you shall have nominated one to succeed him, the law will pass without opposition." Having thus spoken, he dismissed the assembly, after having summoned them to meet again the next day.

And now Gracchus, being soured with the opposition he had met with from the rich, and from his obstinate colleague, and being well apprised, that the law would pass in any form in which he should think fit to propose it, resolved to revive it as it was at first passed, without abating any thing of its severity. There was no exception in favour of the children in families; or reimbursement promised to those who should part with the lands they possessed above 500 acres. The next day the people being assembled in vast crowds on this extraordinary occasion, Gracchus made fresh applications to Octavius, but to no purpose: he obstinately persisted in his opposition. Then Gracchus turning to the people, "Judge you, (said he), which of us deserves to be deprived of his office." At these words the first tribe voted, and declared for the deposition of Octavius. Upon which Gracchus, suspending the ardour of the tribes, made another effort to bring over his opponent by gentle methods. But all his endeavours proving ineffectual, the other tribes went on to vote in their turns, and followed the example of the first. Of 35 tribes, 17 had already declared against Octavius, and the 18th was just going to determine the affair, when Gracchus, being willing to try once more whether he could reclaim his colleague, suspended the collecting of the suffrages; and addressing Octavius in the most pressing terms, conjured him not to expose himself, by his obstinacy, to so great a disgrace, nor to give him the grief of having cast a blemish upon his colleague and friend, which neither time nor merit would ever wipe off. Octavius, however, continuing obstinate, was deposed, and the law passed as Gracchus had proposed it the last time. The deposed tribune was dragged from the rostra by the incensed multitude, who would have insulted him further, had not the senators and his friends facilitated his escape.

177 Who is deposed, and the law passed.

The Licinian law being thus revived with one consent both by the city and country tribes, Gracchus caused the people to appoint triumvirs, or three commissioners, to hasten its execution. In this commission the people gave Gracchus the first place; and he had interest enough to get his father-in-law Appius Claudius, and his brother Caius Gracchus, appointed his colleagues. These three spent the whole summer in travelling through all the Italian provinces, to examine what lands were held by any person above 500 acres, in order to divide them among the poor citizens. When Gracchus returned from his progress, he found, by the death of his chief agent, that his absence had not abated either the hatred of the rich, or the love of the poor, toward him. As it plainly appeared that the deceased had been poisoned, the tribune took this occasion to apply himself again to his protectors, and implore their assistance against the violence and treachery of his enemies. The populace, more attached after this accident to their hero than ever, declared they would stand by him to the last drop of their blood; and thus their zeal encouraged him to add a new clause to the law, viz. that the commissioners should likewise inquire what lands had been usurped from the republic. This was touching the senators in a most tender point; for most of them had appropriated to themselves lands belonging to the republic. After all, the tribune, upon a strict inquiry, found that the lands taken from the rich would not be enough to content all the poor citizens. But the following accident eased him of this difficulty, and enabled him to stop the murmurs of the malcontents among the people.

178 The treasures of Attalus divided among the people by Gracchus.

Attalus Philometer, king of Pergamus, having bequeathed his dominions and effects to the Romans, Eudemus the Pergamean brought his treasures to Rome at this time; and Gracchus immediately got a new law passed, enacting, that this money should be divided among the poor citizens who could not have lands; and that the disposal of the revenues of Pergamus should not be in the senate, but in the comitia. By these steps Gracchus most effectually humbled the senate; who, in order to discredit him among the people, gave out that Eudemus, who had brought the king's will to Rome, had left with Gracchus the royal diadem and mantle of Attalus, which the law-making tribune was to use when he should be proclaimed king of Rome. But these reports only served to put Gracchus more upon his guard, and to inspire the people with an implacable hatred against the rich who were the authors of them. Gracchus being now, by his power over the minds of the multitude, absolute master of their suffrages, formed a design of raising his father-in-law Appius Claudius to the consulate next year, of promoting his brother Caius to the tribuneship, and getting himself continued in the same office. The last was what most nearly concerned him; his person, as long as he was in office, being sacred and inviolable. As the senate was very active in endeavouring to get such only elected into the college of tribunes as were enemies to Gracchus and his faction, the tribune left no stone unturned

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unturned to secure his election. He told the people, that the rich had resolved to assassinate him as soon as he was out of his office; he appeared in mourning, as was the custom in the greatest calamities; and bringing his children, yet young, into the forum, recommended them to the people in such terms, as showed that he despaired of his own preservation. At this sight the populace returned no answer, but by outcries and menaces against the rich.

When the day appointed for the election of new tribunes came, the people were ordered to assemble in the capitol in the great court before the temple of Jupiter. The tribes being met, Gracchus produced his petition, intreating the people to continue him one year longer in the office of tribune, in consideration of the great danger to which he was exposed, the rich having vowed his destruction as soon as his person should be no more sacred. This was indeed an unusual request, it having been long customary not to continue any tribune in his office above a year. However, the tribes began to vote, and the two first declared for Gracchus. Hereupon the rich made great clamours; which terrified Rubrius Varro, who presided in the college of tribunes that day, to such a degree, that he resigned his place to Q. Mummius who offered to preside in his room. But this raised a tumult among the tribunes themselves; so that Gracchus wisely dismissed the assembly, and ordered them to meet again the next day.

In the mean time the people, being sensible of what importance it was to them to preserve the life of so powerful a protector, not only conducted him home, but watched by turns all night at his door. Next morning by break of day, Gracchus having assembled his friends, led them from his house, and posted one half of them in the comitium, while he went up himself with the other to the capitol. As soon as he appeared, the people saluted him with loud acclamations of joy. But scarcely was he placed in his tribunal when Fulvius Flaccus a senator, and friend to Gracchus, breaking through the crowd, came up to him, and gave him notice, that the senators, who were assembled in the temple of Faith, which almost touched that of Jupiter Capitolinus, had conspired against his life, and were resolved to attack him openly on his very tribunal. Hereupon Gracchus tucked up his robe, as it were, to prepare for a battle; and, after his example, some of his party seizing the staves of the apparitors, prepared to defend themselves, and to repel force by force. These preparations terrified the other tribunes; who immediately abandoned their places in a cowardly manner, and mixed with the crowd; while the priests ran to shut the gates of the temple, for fear of its being profaned. On the other hand, the friends of Gracchus, who were dispersed by parties in different places, cried out, *We are ready: What must we do?* Gracchus, whose voice could not be heard by all his adherents on account of the tumult, the clamours, and the confused cries of the different parties, put his hand to his head; which was the signal agreed on to prepare for battle. But some of his enemies, putting a malicious construction upon that gesture, immediately flew to the senate, and told the fathers, that the seditious tribune had called for the crown to be put upon his head. Hereupon the senators, fancying they already saw the king of Pergamus's diadem on the tribune's head, and the royal mantle on his shoulders, resolved to give the consul leave to arm his legions, treat the friends of Gracchus as enemies, and turn the comitium into a field of battle.

179 A conspiracy against his life.

But the consul Mutius Scævola, who was a prudent and moderate man, refused to be the instrument of their rash revenge, and to dishonour his consulate with the massacre of a disarmed people. As Calpurnius Piso, the other consul, was then in Sicily, the most turbulent among the senators cried out, "Since one of our consuls is absent, and the other betrays the republic, let us do ourselves justice; let us immediately go and demolish with our own hands this idol of the people." Scipio Nasica, who had been all along for violent measures, inveighed bitterly against the consul for refusing to succour the republic in her greatest distress. Scipio Nasica was the great-grandson of Cneius Scipio, the uncle of the first Africanus, and consequently cousin to the Gracchi by their mother Cornelia. But nevertheless not one of the senators betrayed a more irreconcilable hatred against the tribune than he. When the prudent consul refused to arm his legions, and put the adherents of Gracchus to death contrary to the usual forms of justice, he set no bounds to his fury, but, rising up from his place, cried out like a madman, "Since our consul betrays us, let those who love the republic follow me." Having uttered these words, he immediately walked out of the temple, attended by a great number of senators.

180 A scuffle ensues, in which Gracchus is killed.

Nasica threw his robe over his shoulders, and having covered his head with it, advanced with his followers into the crowd, where he was joined by a company of the clients and friends of the patricians, armed with staves and clubs. These falling indifferently upon all who stood in their way, dispersed the crowd. Many of Gracchus's party took to their heels; and in that tumult all the seats being overturned and broken, Nasica, armed with the leg of a broken bench, knocked down all who opposed him, and at length reached Gracchus. One of his party seized the tribune by the lappet of his robe: but he, quitting his gown, fled in his tunic; and as he was in that confusion, which is inseparable from fear, leaping over the broken benches, he had the misfortune to slip and fall. As he was getting up again, he received a blow on the head, which stunned him; then his adversaries rushing in upon him, with repeated blows put an end to his life.

Rome was by his death delivered, according to Cicero, from a domestic enemy, who was more formidable to her than even that Numantia, which had first kindled his resentments. Perhaps no man was ever born with greater talents, or more capable of aggrandising himself, and doing honour to his country. But his great mind, his manly courage, his lively, easy, and powerful eloquence, were, says Cicero, like a sword in the hands of a madman. Gracchus abused them, not in supporting an unjust cause, but in conducting a good one with too much violence. He went so far as to make some believe that he had really something in view besides the interest of the people whom he pretended to relieve; and therefore some historians have represented him as a tyrant. But the most judicious writers clear him from this imputation, and ascribe his first design of reviving the Licinian law to an eager desire of being revenged

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venged on the senators for the affront they had very unjustly put upon him, and the consul Mancinus, as we have hinted above. The law he attempted to revive had an air of justice, which gave a sanction to his revenge, without casting any blemish on his reputation.

181 His friends massacred.

The death of Gracchus did not put an end to the tumult. Above 300 of the tribune's friends lost their lives in the affray; and their bodies were thrown, with that of Gracchus, into the Tiber. Nay, the senate carried their revenge beyond the fatal day which had stained the Capitol with Roman blood. They sought for all the friends of the late tribune, and without any form of law assassinated some, and forced others into banishment. Caius Billius, one of the most zealous defenders of the people, was seized by his enemies, and shut up in a cask with snakes and vipers, where he miserably perished. Though the laws prohibited any citizen to take away the life of another before he had been legally condemned, Nasica and his followers were acquitted by the senate, who enacted a decree, justifying all the cruelties committed against Gracchus and his adherents.

182 The disturbances increase.

These disturbances were for a short time interrupted by a revolt of the slaves in Sicily, occasioned by the cruelty of their masters; but they being soon reduced, the contests about the *Sempronian law*, as it was called, again took place. Both parties were determined not to yield; and therefore the most fatal effects ensued. The first thing of consequence was the death of Scipio Africanus the Second, who was privately strangled in his bed by some of the partisans of the plebeian party, about 129 B. C. Caius Gracchus, brother to him who had been formerly killed, not only undertook the revival of the Sempronian law, but proposed a new one, granting the rights of Roman citizens to all the Italian allies, who could receive no share of the lands divided in consequence of the Sempronian law. The consequences of this were much worse than the former; the flame spread through all Italy; and the nations who had made war with the republic in its infancy again commenced enemies more formidable than before. Fregellæ, a city of the Volsci, revolted: but being suddenly attacked, was obliged to submit, and was rased to the ground; which quieted matters for the present. Gracchus, however, still continued his attempts to humble the senate and the rest of the patrician body: the ultimate consequence of which was, that a price was set on his head, and that of Fulvius his confederate, no less than their weight in gold, to any one who should bring them to Opimius the chief of the patrician party. Thus the custom of proscription was begun by the patricians, of which they themselves soon had enough. Gracchus and Fulvius were sacrificed, but the disorders of the republic were not so easily cured.

[182] The custom of proscription begun.

The inundation of the Cimbri and Teutones put a stop to the civil discords for some time longer; but they being defeated, as related under the article Cimbri and Teutones, nothing prevented the troubles from being revived with greater fury than before, except the war with the Sicilian slaves, which had again commenced with more dangerous circumstances than ever. But this war being totally ended about 99 B. C. no farther obstacle remained. Marius, the conqueror of Jugurtha* and the Cimbri, undertook the cause of the plebeians against the senate and patricians. Having associated himself with Apuleius and Glaucia, two factious men, they carried their proceedings to such a length, that an open rebellion commenced, and Marius himself was obliged to act against his allies. Peace, however, was for the present restored by the massacre of Apuleius and Glaucia, with a great number of their followers; upon which Marius thought proper to leave the city.

* See Numidia.

While factious men thus endeavoured to tear the republic in pieces, the attempts of well-meaning people to heal those divisions served only to involve the state in calamities still more grievous. The consuls observed that many individuals of the Italian allies lived at Rome, and falsely pretended to be Roman citizens. By means of them, it was likewise perceived, that the plebeian party had acquired a great deal of its power; as the votes of these pretended citizens were always at the service of the tribunes. The consuls therefore got a law passed, commanding all those pretended citizens to return home. This was so much resented by the Italian states, that an universal defection took place. A scheme was then formed by M. Livius Drusus, a tribune of the people, to reconcile all orders of men; but this only made matters worse, and procured his own assassination. His death seemed a signal for war. The Marsi, Peligni, Samnites, Campanians, and Lucanians, and in short all the provinces from the river Liris to the Adriatic, revolted at once, and formed themselves into a republic, in opposition to that of Rome. The haughty Romans were now made thoroughly sensible that they were not invincible: they were defeated in almost every engagement: and must soon have yielded, had they not fallen upon a method of dividing their enemies. A law was passed, enacting, that all the nations in Italy, whose alliance with Rome was indisputable, should enjoy the right of Roman citizens. This drew off several nations from the alliance; and at the same time, Sylla taking upon him the command of the Roman armies, fortune soon declared in favour of the latter.

183 The social war.

The success of Rome against the allies served only to bring greater miseries upon herself. Marius and Sylla became rivals; the former adhering to the people, and the latter to the patricians. Marius associated with one of the tribunes named *Sulpitius*; in conjunction with whom he raised such disturbances, that Sylla was forced to retire from the city. Having thus driven off his rival, Marius got himself appointed general against Mithridates* king of Pontus; but the soldiers refused to obey any other than Sylla. A civil war immediately ensued, in which Marius was driven out in his turn, and a price set upon his head and that of Sulpitius, with many of their adherents. Sulpitius was soon seized and killed; but Marius made his escape. In the mean time, however, the cruelties of Sylla rendered him obnoxious both to the senate and people; and Cinna, a furious partisan of the Marian faction, being chosen consul, cited him to give an account of his conduct. Upon this Sylla thought proper to set out for Asia; Marius was recalled from Africa, whither he had fled; and immediately on his landing in Italy, was joined by a great number of shepherds, slaves and men of desperate fortunes; so that he soon saw himself at the head of a considerable army.

* See Pontus.

Cinna, in the mean time, whom the senators had deposed

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184 Horrid cruelties committed by Cinna, Marius, &c.

posed and driven out of Rome, solicited and obtained a powerful army from the allies; and being joined by Sertorius, a most able and experienced general, the two, in conjunction with Marius, advanced towards the capitol; and as their forces daily increased, a fourth army was formed under the command of Papirius Carbo. The senate raised some forces to defend the city; but the troops being vastly inferior in number, and likewise inclined to the contrary side, they were obliged to open their gates to the confederates. Marius entered at the head of a numerous guard, composed of slaves, whom he called his *Bardiœans*, and whom he designed to employ in revenging himself on his enemies. The first order he gave these assassins was, to murder all who came to salute him, and were not answered with the like civility. As every one was forward to pay his compliments to the new tyrant, this order proved the destruction of vast numbers. At last these Bardiæans abandoned themselves to such excesses in every kind of vice, that Cinna and Sertorius ordered their troops to fall upon them; which being instantly put in execution, they were all cut off to a man.

By the destruction of his guards, Marius was reduced to the necessity of taking a method of gratifying his revenge somewhat more tedious, though equally effectual. A conference was held between the four chiefs, in which Marius seemed quite frantic with rage. Sertorius endeavoured to moderate his fury; but, being overruled by Cinna and Carbo, a resolution was taken to murder without mercy all the senators who had opposed the popular faction. This was immediately put in execution. A general slaughter commenced, which lasted five days, and during which the greatest part of the obnoxious senators were cut off, their heads stuck upon poles over-against the rostra, and their bodies dragged with hooks into the forum, where they were left to be devoured by dogs. Sylla's house was demolished, his goods confiscated, and he himself declared an enemy to his country: however, his wife and children had the good fortune to make their escape.—This massacre was not confined to the city of Rome. The soldiers, like as many blood-hounds, were dispersed over the country in search of those who fled. The neighbouring towns, villages, and all the highways, swarmed with assassins; and on this occasion Plutarch observes with great concern, that the most sacred ties of friendship and hospitality are not proof against treachery, in the day of adversity, for there were but very few who did not discover their friends who had fled to them for shelter.

185 Sylla threatens revenge.

This slaughter being over, Cinna named himself and Marius consuls for the ensuing year; and these tyrants seemed resolved to begin the new year as they had ended the old one: but, while they were preparing to renew their cruelties, Sylla, having proved victorious in the east, sent a long letter to the senate, giving an account of his many victories, and his resolution of returning to Rome, not to restore peace to his country, but to revenge himself of his enemies, i. e. to destroy those whom Marius had spared. This letter occasioned an universal terror. Marius, dreading to enter the lists with such a renowned warrior, gave himself up to excessive drinking, and died. His son was associated with Cinna in the government, though not in the consulship, and proved a tyrant no less cruel than his father. The senate declared one Valerius Flaccus, general of the forces in the east, and appointed him a considerable army; but the troops all to a man deserted him, and joined Sylla. Soon after, Cinna declared himself consul a third time, and took for his colleague Papirius Carbo; but the citizens dreading the tyranny of these inhuman monsters, fled in crowds to Sylla, who was now in Greece. To him the senate sent deputies, begging that he would have compassion on his country, and not carry his resentment to such a length as to begin a civil war: but he replied that he was coming to Rome full of rage and revenge; and that all his enemies, if the Roman people consented to it, should perish either by the sword or the axes of the executioners. Upon this several very numerous armies were formed against him, but, through the misconduct of the generals who commanded them, these armies were everywhere defeated, or went over to the enemy. Pompey, afterwards styled *the Great*, signalized himself in this war, and embraced the party of Sylla. The Italian nations took some one side and some another, as their different inclinations led them. Cinna, in the mean time, was killed in a tumult, and young Marius and Carbo succeeded him; but the former having ventured an engagement with Sylla, was by him defeated, and forced to fly to Prænestе, where he was closely besieged.

186 Rome in the utmost danger from Telesinus a Samnite.

Thus was Rome reduced to the lowest degree of misery, when one Pontius Telesinus, a Samnite of great experience in war, projected the total ruin of the city. He had joined, or pretended to join, the generals of the Marian faction with an army of 40,000 men; and therefore marched towards Præneste, as if he designed to relieve Marius. By this means he drew Sylla and Pompey away from the capitol; and then, decamping in the night, overreached these two generals, and by break of day was within 10 furlongs of the Collatine gate. He then pulled off the mask; and declaring himself as much an enemy to Marius as to Sylla, told his troops, that it was not his design to assist one Roman against another, but to destroy the whole race. "Let fire and sword (said he) destroy all; let no quarter be given; mankind can never be free as long as one Roman is left alive."—Never had this proud metropolis been in greater danger; nor ever had any city a more narrow escape. The Roman youth marched out to oppose him, but were driven back with great slaughter. Sylla himself was defeated, and forced to fly to his camp. Telesinus advanced with more fury than ever; but, in the mean time, the other wing of his army having been defeated by M. Crassus, the victorious general attacked the body where Telesinus commanded, and by putting them to flight, saved his country from the most imminent danger.

187 Monstrous cruelty of Sylla.

Sylla, having now no enemy to fear, marched first to Atemnæ, and thence to Rome. From the former city he carried 8000 prisoners to Rome, and caused them all to be massacred at once in the circus. His cruelty next fell upon the Prænestines, 12,000 of whom were massacred without mercy. Young Marius had killed himself, in order to avoid falling into the hands of such a cruel enemy. Soon after, the inhabitants of Norba, a city of Campania, finding themselves unable to resist the forces of the tyrant, set fire to their houses, and all perished in the flames. The taking of these cities put an end to the civil war, but not to the cruel-

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ties of Sylla. Having assembled the people in the comitium, he told them, that he was resolved not to spare a single person who had borne arms against him. This cruel resolution he put in execution with the most unrelenting rigour; and having at last cut off all those whom he thought capable of opposing him, Sylla caused himself to be declared perpetual dictator, or, in other words, king and absolute sovereign of Rome.

188 He is proclaimed perpetual dictator.

This revolution happened about 80 B. C. and from this time we may date the loss of the Roman liberty. Sylla indeed resigned his power in two years; but the citizens of Rome having once submitted, were ever after more inclined to submit to a master. Though individuals retained the same enthusiastic notions of liberty as before, yet the minds of the generality seem from this time to have inclined towards monarchy. New masters were indeed already prepared for the republic. Cæsar and Pompey had eminently distinguished themselves by their martial exploits, and were already rivals. They were, however, for some time prevented from raising any disturbances by being kept at a distance from each other. Sertorius, one of the generals of the Marian faction, and the only one of them possessed either of honour or probity, had retired into Spain, where he erected a republic independent of Rome. Pompey and Metellus, two of the best reputed generals in Rome, were sent against him; but instead of conquering, they were on all occasions conquered by him, and obliged to abandon their enterprise with disgrace. At last Sertorius was treacherously murdered; and the traitors, who after his death usurped the command, being totally destitute of his abilities, were easily defeated by Pompey: and thus that general reaped an undeserved honour from concluding the war with success.

The Spanish war was scarce ended, when a very dangerous one was excited by Spartacus, a Thracian gladiator. For some time this rebel proved very successful; but at last was totally defeated and killed by Crassus. The fugitives, however, rallied again, to the number of 5000; but, being totally defeated by Pompey, the latter took occasion from thence to claim the glory which was justly due to Crassus. Being thus become extremely popular, and setting no bounds to his ambition, he was chosen consul along with Crassus. Both generals were at the head of powerful armies; and a contest between them immediately began about who should first lay down their arms. With difficulty they were in appearance reconciled, and immediately began to oppose one another in a new way. Pompey courted the favour of the people, by reinstating the tribunes in their ancient power, which had been greatly abridged by Sylla. Crassus, though naturally covetous, entertained the populace with surprising profusion at 10,000 tables, and at the same time distributed corn sufficient to maintain their families for three months.—These prodigious expences will seem less surprising, when we consider that Crassus was the richest man in Rome, and that his estate amounted to upwards of 7000 talents, i. e. L.1,356,250 sterling. Notwithstanding his utmost efforts, however, Pompey still had the superiority; and was therefore proposed as a proper person to be employed for clearing the seas of pirates. In this new station a most extensive power was to be granted to him. He was to have an absolute authority for three years over all the seas within the straits or Pillars of Hercules, and over all the countries for the space of 400 furlongs from the sea. He was empowered to raise as many soldiers and mariners as he thought proper; to take what sums of money he pleased out of the public treasury without being accountable for them; and to choose out of the senate fifteen senators to be his lieutenants, and to execute his orders when he himself could not be present. The sensible part of the people were against investing one man with so much power; but the unthinking multitude rendered all opposition fruitless. The tribune Roscius attempted to speak against it, but was prevented by the clamours of the people. He then held up two of his fingers, to show that he was for dividing that extensive commission between two persons: but on this the assembly burst out into such hideous outcries, that a crow flying accidentally over the comitium, was stunned with the noise and fell down among the rabble. This law being agreed to, Pompey executed his commission so much to the public satisfaction, that on his return a new law was proposed in his favour. By this he was to be appointed general of all the forces in Asia; and as he was still to retain the sovereignty of the seas, he was now in fact made sovereign of all the Roman empire. This law was supported by Cicero and Cæsar, the former aspiring at the consulate, and the latter pleased to see the Romans so readily appointing themselves a master. Pompey, however, executed his commission with the utmost fidelity and success, completing the conquest of Pontus, Albania, Iberia, &c. which had been successfully begun by Sylla and Lucullus.

189 Pompey and Crassus assume great authority.

190 Conspiracy of Catiline.

But while Pompey was thus aggrandising himself, the republic was on the point of being subverted by a conspiracy formed by Lucius Sergius Catiline. He was descended from an illustrious family; but having quite ruined his estate, and rendered himself infamous by a series of the most detestable crimes, he associated with a number of others in circumstances similar to his own, in order to repair their broken fortunes by ruining their country. Their scheme was to murder the consuls together with the greatest part of the senators, set fire to the city in different places, and then seize the government. This wicked design miscarried twice: but was not on that account dropped by the conspirators. Their party increased every day; and both Cæsar and Crassus, who since the departure of Pompey had studied to gain the affections of the people as far as possible, were thought to have been privy to the conspiracy. At last, however, the matter was discovered by means of a young knight, who had indiscreetly revealed the secret to his paramour. Catiline then openly took the field, and soon raised a considerable army: but was utterly defeated and killed about 62 B. C.; and thus the republic was freed from the present danger.

In the mean time, Cæsar continued to advance in popularity and in power. Soon after the defeat of Catiline, he was created pontifex maximus; and after that was sent into Spain, where he subdued several nations that had never before been subject to Rome.— While he was thus employed, his rival Pompey returned from the east, and was received with the highest honours; but though still as ambitious as ever, he now affected extraordinary modesty, and declined accepting of the applause which was offered him. His aim was to assume a sovereign authority without seeming to desire it; but he

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he was soon convinced, that, if he desired to reign over his fellow-citizens, it must be by force of arms. He therefore renewed his intrigues, and spared no pains however mean and scandalous, to increase his popularity. Cæsar, on his return from Spain, found the sovereignty divided between Crassus and Pompey, each of whom was ineffectually struggling to get the better of the other. Cæsar, no less ambitious than the other two, proposed that they should put an end to their differences, and take him for a partner in their power. In short, he projected a triumvirate, or association of three persons, (Pompey, Crassus, and himself), in which should be lodged the whole power of the senate and people; and, in order to make their confederacy more lasting, they bound themselves by mutual oaths and promises to stand by each other, and suffer nothing to be undertaken or carried into execution without the unanimous consent of all the three.

191 The first triumvirate.

Thus was the liberty of the Romans taken away a second time, nor did they ever afterwards recover it; though at present none perceived that this was the case, except Cato. The association of the triumvirs was for a long time kept secret; and nothing appeared to the people except the reconciliation of Pompey and Crassus, for which the state reckoned itself indebted to Cæsar. The first consequence of the triumvirate was the consulship of Julius Cæsar. But though this was obtained by the favour of Pompey and Crassus, he found himself disappointed in the colleague he wanted to associate with him in that office. He had pitched upon one whom he knew he could manage as he pleased, and distributed large sums among the people in order to engage them to vote for him. The senate, however, and even Cato himself, resolved to defeat the triumvir at his own weapons; and having therefore set up another candidate, distributed such immense sums on the opposite side, that Cæsar, notwithstanding the vast riches he had acquired, was forced to yield. This defeat proved of small consequence. Cæsar set himself to engage the affections of the people; and this he did, by an agrarian law, so effectually, that he was in a manner idolized. The law was in itself very reasonable and just; nevertheless, the senate, perceiving the design with which it was proposed thought themselves bound to oppose it. Their opposition, however, proved fruitless: the consul Bibulus, who shewed himself most active in his endeavours against it, was driven out of the assembly with the greatest indignity, and from that day became of no consideration; so that Cæsar was reckoned the sole consul.

The next step taken by Cæsar was to secure the knights, as he had already done the people; and for this purpose he abated a third of the rents which they annually paid into the treasury; after which he governed Rome with an absolute sway during the time of his consulate. The reign of this triumvir, however, was ended by his expedition into Gaul, where his military exploits acquired him the highest reputation.—Pompey and Crassus in the mean time became consuls, and governed as despotically as Cæsar himself had done. On the expiration of their first consulate, the republic fell into a kind of anarchy, entirely owing to the disorders occasioned by the two late consuls. At last, however, this confusion was ended by raising Crassus and Pompey to the consulate a second time. This was no sooner done, than a new partition of the empire was proposed. Crassus was to have Syria and all the eastern provinces, Pompey was to govern Africa and Spain, and Cæsar to be continued in Gaul, and all this for the space of five years. This law was passed by a great majority; upon which Crassus undertook an expedition against the Parthians, whom he imagined he should easily overcome, and then enrich himself with their spoils; Cæsar applied with great assiduity to the completing of the conquest of Gaul; and Pompey having nothing to do in his province, staid at Rome to govern the republic alone.

The affairs of the Romans were now hastening to a crisis. Crassus, having oppressed all the provinces of the east, was totally defeated and killed by the Parthians *; after which the two great rivals Cæsar and Pompey were left alone, without any third person who could hold the balance between them, or prevent the deadly quarrels which were about to ensue. Matters, however, continued pretty quiet till Gaul was reduced to a Roman province †. The question then was, whether Cæsar or Pompey should first resign the command of their armies, and return to the rank of private persons. As both parties saw, that whoever first laid down his arms must of course submit to the other, both refused to disarm themselves. As Cæsar, however, had amassed immense riches in Gaul, he was now in a condition not only to maintain an army capable of vying with Pompey, but even to buy over the leading men in Rome to his interest. One of the consuls, named *Æmilius Paulus*, cost him no less than 1500 talents, or L.310,625 sterling; but the other, named *Marcellus*, could not be gained at any price. Pompey had put at the head of the tribunes one Scribonius Curio, a young patrician of great abilities, but so exceedingly debauched and extravagant, that he owed upwards of four millions and a half of our money. Cæsar, by enabling him to satisfy his creditors, and supplying him with money to pursue his debaucheries, secured him in his interest; and Curio, without seeming to be in Cæsar's interest, found means to do him the most essential service. He proposed that both generals should be recalled; being well assured that Pompey would never consent to part with his army, or lay down the government of Spain with which he had been invested, so that Cæsar might draw from Pompey's refusal a pretence for continuing himself in his province at the head of his troops. This proposal threw the opposite party into great embarrassments; and while both professed their pacific intentions, both continued in readiness for the most obstinate and bloody war.—Cicero took upon himself the office of mediator; but Pompey would hearken to no terms of accommodation. The orator, surprised to find him so obstinate, at the same time that he neglected to strengthen his army, asked him with what forces he designed to make head against Cæsar? To which the other answered, that he needed but stamp with his foot, and an army would start up out of the ground. This confidence he assumed because he persuaded himself that Cæsar's men would abandon him if matters came to extremities. Cæsar, however, though he affected great moderation, yet kept himself in readiness for the worst; and therefore, when the senate passed the fatal decree for a civil war, he was not in the least alarmed. This decree was issued in the year 49 B. C. and was expressed in the following words: "Let the consuls for the year, the proconsul Pompey, the

* See *Parthia*.

192 Rivalship of Cæsar and Pompey.

† See *Gaul*.

193 The decree for a civil war.

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the prætors, and all those in or near Rome who have been consuls, provide for the public safety by the most proper means." This decree was no sooner passed than the consul Marcellus went, with his colleague Lentulus, to an house at a small distance from the town, where Pompey then was; and presenting him with a sword, "We require you (said he) to take upon you with this the defence of the republic, and the command of her troops." Pompey obeyed: and Cæsar was by the same decree divested of his office, and one Lucius Domitius appointed to succeed him, the new governor being empowered to raise 4000 men in order to take possession of his province.

War being thus resolved on, the senate and Pompey began to make the necessary preparations for opposing Cæsar. The attempt of the latter to withstand their authority they termed a *tumult*; from which contemptible epithet it appeared that they either did not know, or did not dread, the enemy whom they were bringing upon themselves. However, they ordered 30,000 Roman forces to be assembled, together with as many foreign troops as Pompey should think proper; the expence of which armament was defrayed from the public treasury. The governments of provinces, and all public honours, were bestowed upon such as were remarkable for their attachment to Pompey and their enmity to Cæsar. The latter, however, was by no means wanting in what concerned his own interest. Three of the tribunes who had been his friends were driven out of Rome, and arrived in his camp disguised like slaves. Cæsar showed them to his army in this ignominious habit; and, setting forth the iniquity of the senate and patricians, exhorted his men to stand by their general under whom they had served so long with success; and finding by their acclamations that he could depend on them, he resolved to begin hostilities immediately.

194 Hostilities begun by Cæsar.

The first design of Cæsar was to make himself master of Arminium, a city bordering upon Cisalpine Gaul, and consequently a part of his province; but as this would be looked upon as a declaration of war, he resolved to keep his design as private as possible. At that time he himself was at Ravenna, from whence he sent a detachment towards the Rubicon, desiring the officer who commanded it to wait for him on the banks of that river. The next day he assisted at a show of gladiators, and made a great entertainment. Towards the close of the day he arose from table, desiring his guests to stay till he came back, which he said would be very soon; but, instead of returning to the company, he immediately set out for the Rubicon, having left orders to some of his most intimate friends to follow him through different roads, to avoid being observed. Having arrived at the Rubicon, which parted Cisalpine Gaul from Italy, the succeeding misfortunes of the empire occurred to his mind, and made him hesitate. Turning then to Asinius Pollio, "If I don't cross the river (said he), I am undone; and if I do cross it, how many calamities shall I by this means bring upon Rome!" Having thus spoken, he mused a few minutes; and then crying out, "The die is cast," he threw himself him into the river, and crossing it, marched with all possible speed to Arminium, which he reached and surprised before daybreak. From thence, as he had but one legion with him, he dispatched orders to the formidable army he had left in Gaul to cross the mountains and join him.

The activity of Cæsar struck the opposite party with the greatest terror; and indeed not without reason, for they had been extremely negligent in making preparations against such a formidable opponent. Pompey himself, no less alarmed than the rest, left Rome with a design to retire to Capua, where he had two legions whom he had formerly draughted out of Cæsar's army. He communicated his intended flight to the senate; but at the same time acquainted them, that if any magistrate or senator refused to follow him, he should be treated as a friend to Cæsar and an enemy to his country. In the mean time Cæsar, having raised new troops in Cisalpine Gaul, sent Marc Antony with a detachment to seize Aretium, and some other officers to secure Pisaurum and Fanum, while he himself marched at the head of the thirteenth legion to Auximum, which opened its gates to him. From Auximum he advanced into Picenum, where he was joined by the twelfth legion from Transalpine Gaul. As Picenum readily submitted to him, he led his forces against Corfinium, the capital of the Peligni, which Domitius Ahenobarbus defended with thirty cohorts. But Cæsar no sooner invested it, than the garrison betrayed their commander, and delivered him up with many senators, who had taken refuge in the place, to Cæsar, who granted them their lives and liberty. Domitius, fearing the resentment of the conqueror, had ordered one of his slaves, whom he used as a physician, to give him a dose of poison. When he came to experience the humanity of the conqueror, he lamented his misfortune, and blamed the hastiness of his own resolution. But his physician, who had only given him a sleeping draught, comforted him, and received his liberty as a reward for his affection.

195 Takes several towns.

196 Besieges Pompey, who escapes by a stratagem.

Pompey, thinking himself no longer safe at Capua after the reduction of Corfinium retired to Brundusium, with a design to carry the war into the east, where all the governors were his creatures. Cæsar followed him close; and arriving with his army before Brundusium, invested the place on the land-side, and undertook to shut up the port by a staccado of his own invention. But, before the work was completed, the fleet which had conveyed the two consuls with thirty cohorts to Dyrrhachium being returned Pompey resolved to make his escape, which he conducted with all the experience and dexterity of a great officer. He kept his departure very secret; but, at the same time, made all necessary preparations for the facilitating of it. In the first place, he walled up the gates, then dug deep and wide ditches cross all the streets, except only those two that led to the port; in the ditches he planted sharp-pointed stakes, covering them with hurdles and earth. After these precautions he gave express orders that all the citizens should keep within doors, lest they should betray his design to the enemy; and then, in the space of three days, embarked all his troops, except the light-armed infantry, whom he had placed on the walls; and these, likewise, on a signal given, abandoning their posts, repaired with great expedition to the ships. Cæsar, perceiving the walls unguarded, ordered his men to scale them, and make what haste they could after the enemy. In the heat of the pursuit, they would have fallen into the ditches which Pompey had prepared for them, had not the Brundusians warned them of the danger, and, by many windings and turnings, led them to the haven, where they found all the fleet under sail, except

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except two vessels, which had run aground in going out of the harbour. These Cæsar took, made the soldiers on board prisoners, and brought them ashore.

Cæsar, seeing himself, by the flight of his rival, master of all Italy from the Alps to the sea, was desirous to follow and attack him before he was joined by the supplies which he expected from Asia. But being destitute of shipping, he resolved to go first to Rome, and settle some sort of government there; and then pass into Spain, to drive from thence Pompey's troops, who had taken possession of that great continent, under the command of Afranius and Petreius. Before he left Brundusium, he sent Scribonius Curio with three legions into Sicily, and ordered Q. Valerius, one of his lieutenants, to get together what ships he could, and cross over with one legion into Sardinia. Cato, who commanded in Sicily, upon the first news of Curio's landing there, abandoned the island, and retired to the camp of the consuls at Dyrrhachium; and Q. Valerius no sooner appeared with his small fleet off Sardinia, than the Caralitini, now the inhabitants of Cagliari, drove out Aurelius Cotta, who commanded there for the senate, and put Cæsar's lieutenant in possession both of their city and island.

197 Cæsar goes to Rome.

In the mean time the general himself advanced towards Rome; and on his march wrote to all the senators then in Italy, desiring them to repair to the capital and assist him with their counsel. Above all, he was desirous to see Cicero; but could not prevail upon him to return to Rome. As Cæsar drew near the capital, he quartered his troops in the neighbouring municipia: and then advancing to the city, out of a pretended respect to the ancient customs, he took up his quarters in the suburbs, whither the whole city crowded to see the famous conqueror of Gaul, who had been absent near ten years. And now such of the tribunes of the people as had fled to him for refuge reassumed their functions, mounted the rostra, and endeavoured by their speeches to reconcile the people to the head of their party. Marc Antony particularly, and Cassius Longinus, two of Cæsar's most zealous partisans, moved that the senate should meet in the suburbs, that the general might give them an account of his conduct. Accordingly, such of the senators as were at Rome assembled; when Cæsar made a speech in justification of all his proceedings, and concluded his harangue with proposing a deputation to Pompey, with offers of an accommodation in an amicable manner. He even desired the conscript fathers, to whom in appearance he paid great deference, to nominate some of their venerable body to carry proposals of peace to the consuls, and the general of the consular army; but none of the senators would take upon him that commission. He then began to think of providing himself with the necessary sums for carrying on the war, and had recourse to the public treasury. But Metellus, one of the tribunes, opposed him; alleging a law forbidding any one to open the treasury, but in the presence and with the consent of the consuls. Cæsar, however, without regarding the tribune, went directly to the temple of Saturn, where the public money was kept. But the keys of the treasury having been carried away by the consul Lentulus, he ordered the doors to be broken open. This Metellus opposed: but Cæsar, in a passion, laying his hand on his sword, threatened to kill him if he gave him any farther disturbance; which so terrified Metellus, that he withdrew. Cæsar took out of the treasury, which was ever after at his command, an immense sum; some say, 300,000 pounds weight of gold. With this supply of money he raised troops all over Italy, and sent governors into all the provinces subject to the republic.

198 Supplies himself with money from the public treasury.

Cæsar now made Marc Antony commander in chief of the armies in Italy, sent his brother C. Antonius to govern Illyricum, assigned Cisalpine Gaul to Licinius Crassus, appointed M. Æmilius Lepidus governor of the capital; and having got together some ships to cruise in the Adriatic and Mediterranean seas, he gave the command of one of his fleets to P. Cornelius Dolabella, and of the other to young Hortensius, the son of the famous orator. As Pompey had sent governors into the same provinces, by this means a general war was kindled in almost all the parts of the known world. However, Cæsar would not trust any of his lieutenants with the conduct of the war in Spain, which was Pompey's favourite province, but took it upon himself; and having settled his affairs in great haste at Rome, returned to Ariminum, assembled his legions there, and passing the Alps, entered Transalpine Gaul. There he was informed that the inhabitants of Marseilles had resolved to refuse him entrance into their city; and that L. Domitius Ahenobarbus, whom he had generously pardoned and set at liberty after the reduction of Corsinium, had set sail for Marseilles with seven galleys, having on board a great number of his clients and slaves, with a design to raise the city in favour of Pompey. Cæsar, thinking it dangerous to let the enemy take possession of such an important place, sent for the 15 chief magistrates of the city, and advised them not to begin a war with him, but rather follow the example of Italy, and submit. The magistrates returned to the city, and soon after informed him that they were to stand neuter: but in the mean time Domitius arriving with his small squadron, was received into the city, and declared general of all their forces. Hereupon Cæsar immediately invested the town with three legions, and ordered twelve galleys to be built at Arelas, now *Arles*, in order to block up the port. But as the siege was like to detain him too long, he left C. Trebonius to carry it on, and D. Brutus to command the fleet, while he continued his march into Spain, where he began the war with all the valour, ability, and success of a great general. Pompey had three generals in this continent, which was divided into two Roman provinces. Varro commanded in Farther Spain; and Petreius and Afranius, with equal power, and two considerable armies, in Hither Spain. Cæsar, while he was yet at Marseilles, sent Q. Fabius, one of his lieutenants, with three legions, to take possession of the passes of the Pyrenees, which Afranius had seized. Fabius executed his commission with great bravery, entered Spain, and left the way open for Cæsar, who quickly followed him. As soon as he had crossed the mountains, he sent out scouts to observe the situation of the enemy; by whom he was informed, that Afranius and Petreius having joined their forces, consisting of five legions, 20 cohorts of the natives, and 5000 horse, were advantageously posted on an hill of an easy ascent in the neighbourhood of Herda, now *Lerida*, in Catalonia. Upon this advice Cæsar advanced within sight of the enemy, and encamped in a plain between the Sicoris and Cinga, now the *Segro* and *Cinca*. Between

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199 Is reduced to great distress in Spain.

tween the eminence on which Afranius had posted himself, and the city of Herda, was a small plain, and in the middle of it a rising ground, which Cæsar attempted to seize, in order to cut off by that means the communication between the enemy's camp and the city, from whence they had all their provisions. This occasioned a sharp dispute between three of Cæsar's legions and an equal number of the enemy, which lasted five hours with equal success, both parties claiming the victory. But after all, Afranius's men, who had first seized the post, maintained themselves in possession of it in spite o Cæsar's utmost efforts. Two days after this battle, continual rains, with the melting of the snow on the mountains, so swelled the two rivers between which Cæsar was encamped, that they overflowed, broke down his bridges, and laid under water the neighbouring country to a great distance. This cut off the communication between his camp and the cities that had declared for him; and reduced him to such straits, that his army was ready to die for famine, wheat being sold in his camp at 50 Roman denarii per bushel, that is, L.1 12s. 1½d. sterling. He tried to rebuild his bridges, but in vain; the violence of the stream rendering all his endeavours fruitless.

Upon the news of Cæsar's distress, Pompey's party at Rome began to take courage. Several persons of distinction went to congratulate Afranius's wife on the success of her husband's arms in Spain. Many of the senators who had hitherto stood neuter, hastened to Pompey's camp, taking it for granted that Cæsar was reduced to the last extremity, and all hopes of his party lost. Of this number was Cicero; who, without any regard to the remonstrances of Atticus, or the letters Cæsar himself wrote to him desiring him to join neither party, left Italy, and landed at Dyrrhachium, where Pompey received him with great marks of joy and friendship. But the joy of Pompey's party was not long-lived. For Cæsar, after having attempted several times in vain to rebuild his bridges, caused boats to be made with all possible expedition; and while the enemy were diverted by endeavouring to intercept the succours that were sent him from Gaul, he laid hold of that opportunity to convey his boats in the night on carriages 22 miles from his camp; where with wonderful quickness a great detachment passed the Sicoris, and encamping on the opposite bank unknown to the enemy, built a bridge in two days, opened a communication with the neighbouring country, received the supplies from Gaul, and relieved the wants of his soldiers. Cæsar being thus delivered from danger, pursued the armies of Afranius and Petreius with such superior address and conduct, that he forced them to submit without coming to a battle, and by that means became master of all Hither Spain. The two generals disbanded their troops, sent them out of the province, and returned to Italy, after having solemnly promised never to assemble forces again, or make war upon Cæsar. Upon the news of the reduction of Hither Spain, the Spaniards in Farther Spain, and one Roman legion, deserted from Varro, Pompey's governor in that province, which obliged him to surrender his other legion and all his money.

200 Overcomes his difficulties, and reduces all Spain.

Cæsar having thus reduced all Spain in a few months, appointed Cassius Longinus to govern the two provinces with four legions, and then returned to Marseilles; which city was just upon the point of surrendering after a most vigorous resistance. Though the inhabitants had by their late treachery deserved a severe punishment, yet he granted them their lives and liberty; but stripped their arsenals of arms, and obliged them to deliver up all their ships. From Marseilles Cæsar marched into Cisalpine Gaul; and from thence hastened to Rome, where he laid the foundation of his future grandeur. He found the city in a very different state from that in which he had left it. Most of the senators and magistrates were fled to Pompey at Dyrrhachium. However, there were still prætors there; and among them M. Æmilius Lepidus, who was afterwards one of the triumvirs with Octavius and Marc Antony. The prætor, to ingratiate himself with Cæsar, nominated him dictator of his own authority, and against the inclination of the senate. Cæsar accepted the new dignity: but neither abused his power as Sylla had done, nor retained it so long. During the 11 days of his dictatorship, he governed with great moderation, and gained the affections both of the people and the patricians. He recalled the exiles, granted the rights and privileges of Roman citizens to all the Gauls beyond the Po, and, as pontifex maximus, filled up the vacancies of the sacerdotal colleges with his own friends. Though it was expected that he would have absolutely cancelled all debts contracted since the beginning of the troubles he only reduced the interest to one-fourth. But the chief use he made of his dictatorship was to preside at the election of consuls for the next year, when he got himself, and Servilius Isauricus, one of his most zealous partisans, promoted to that dignity.

201 Returns to Rome, and is created dictator.

And now being resolved to follow Pompey, and carry the war into the east, he set out for Brundusium, whither he had ordered 12 legions to repair with all possible expedition. But on his arrival he found only five there. The rest, being afraid of the dangers of the sea, and unwilling to engage in a new war, had marched leisurely, complaining of their general for allowing them no respite, but hurrying them continually from one country to another. However, Cæsar did not wait for them, but set sail with only five legions and 600 horse in the beginning of January. While the rest were waiting at Brundusium for ships to transport them over into Epirus, Cæsar arrived safe with his five legions in Chaonia, the northern part of Epirus, near the Ceraunian mountains. There he landed his troops, and sent the ships back to Brundusium to bring over the legions that were left behind. The war he was now entering upon was the most difficult he had yet undertaken. Pompey had for a whole year been assembling troops from all the eastern countries. When he left Italy, he had only five legions; but since his arrival at Dyrrhachium he had been reinforced with one from Sicily, another from Crete, and two from Syria. Three thousand archers, six cohorts of slingers, and seven thousand horse, had been sent him by princes in alliance with Rome. All the free cities of Asia had reinforced his army with their best troops; nay, if we give credit to an historical poet, succours were brought him from the Indus and the Ganges to the east, and from Arabia and Ethiopia to the south; at least it is certain, that Greece, Asia Minor, Syria, Palestine, Egypt, and all the nations from the Mediterranean to the Euphrates, took up arms in his favour. He had almost all the Roman knights, that

202 Follows Pompey into the east.

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that is, the flower of the young nobility, in his squadrons, and his legions consisted mostly of veterans inured to dangers and the toils of war. Pompey himself was a general of great experience and address; and had under him some of the best commanders of the republic, who had formerly conducted armies themselves. As for his navy, he had above 500 ships of war, besides a far greater number of small vessels, which were continually cruising on the coasts, and intercepted such ships as carried arms or provisions to the enemy. He had likewise with him above 200 senators, who formed a more numerous senate than that at Rome. Cornelius Lentulus and Claudius Marcellus, the last year's consuls, presided in it; but under the direction of Pompey their protector, who ordered them to assemble at Thessalonica, where he built a stately hall for that purpose. There, in one of their assemblies, at the motion of Cato, it was decreed, that no Roman citizen should be put to death but in battle, and that no city subject to the republic should be sacked. At the same time the conscript fathers assembled at Thessalonica decreed, that they alone represented the Roman senate, and that those who resided at Rome were encouragers of tyranny, and friends to the tyrant. And indeed, as the flower of the nobility was with Pompey, and the most virtuous men in the republic had taken refuge in his camp, he was generally looked upon as the only hope and support of the public liberty. Hence many persons of eminent probity, who had hitherto stood neuter, flocked to him from all parts. Among these were young Brutus, who afterwards conspired against Cæsar, Tidius Sextius, and Labienus. Brutus, whose father had been put to death in Galatia by Pompey's order, had never spoken to him, or so much as saluted him since that time: but as he now looked upon him as the defender of the public liberty, he joined him, sacrificing therein his private resentment to the interest of the public. Pompey received him with great joy, and was willing to confer upon him some command; but he declined the offer. Tidius Sextius, though extremely old and lame, yet left Rome, and went as far as Macedonia to join Pompey there. Labienus likewise forsook his old benefactor, under whom he had served during the whole course of the Gaulish war, and went over to his rival, though Cæsar had appointed him commander in chief of all the forces on the other side the Alps. In short, Pompey's party grew into such reputation, that his cause was generally called the *good cause*, while Cæsar's adherents were looked upon as enemies to their country, and abettors of tyranny.

203 Makes proposals of accommodation, which are rejected.

As soon as Cæsar landed, he marched directly to Oricum, the nearest city in Epirus, which was taken without opposition. The like success attended him at Apollonia, which was in no condition to stand a siege; and these two conquests opened a way to Dyrrhachium, where Pompey had his magazines of arms and provisions. This success, however, was interrupted by the news that the fleet which he had sent back to Brundusium to transport the rest of his troops had been attacked by Bibulus, one of Pompey's admirals, who had taken 30, and inhumanly burnt them with the seamen on board. This gave Cæsar great uneasiness, especially as he heard that Bibulus, with 110 ships of war, had taken possession of all the harbours between Salonium and Oricum; so that the legions at Brundusium could not venture to cross the sea without great danger of falling into the enemy's hands. By this Cæsar was so much embarrassed, that he made proposals of accommodation upon very moderate terms; being no other than that both Pompey and he should disband their armies within three days, renew their former friendship with solemn oaths, and return together to Italy. These proposals were sent by Vibullius Rufus, an intimate friend of Pompey, whom Cæsar had twice taken prisoner. Pompey, however, probably elated with his late good fortune, answered that he would not hearken to any terms, lest it should be said that he owed his life and return to Italy to Cæsar's favour. However, the latter again sent one Vatinius to confer with Pompey about a treaty of peace. Labienus was appointed to receive the proposals; but while they were conferring together, a party of Pompey's men coming up to them, discharged their darts at Vatinius and those who attended him. Some of the guards were wounded, and Vatinius narrowly escaped with his life.

In the mean time Cæsar advanced towards Dyrrhachium, in hopes of surprising that important place; but Pompey unexpectedly appearing, he halted on the other side of the river Apius, where he intrenched himself, as having but a small number of troops in comparison of the formidable army which attended Pompey. The latter, however, notwithstanding his superiority, durst not cross the river in Cæsar's sight; so that the two armies continued for some time quiet in their respective camps. Cæsar wrote letter after letter to Marc Antony, who commanded the legions he had left in Italy, to come to his assistance; but receiving no answer, Cæsar disguised himself in the habit of a slave, and with all imaginable secrecy went on board a fisherman's bark, with a design to go over to Brundusium, though the enemy's fleet was cruising on the coasts both of Greece and Italy. This design, however, miscarried, by reason of the boat being put back by contrary winds; and thus Cæsar was restored to his soldiers, who had been very uneasy at his absence. He was no sooner landed than he dispatched Posthumius, one of his lieutenants, with most pressing orders to Marc Antony, Gabinius, and Calenus, to bring the troops to him at all adventures. Gabinius, unwilling to expose all the hopes of his general to the hazards of the sea, thought it safer to march a great way about by Illyricum, and therefore engaged all the legionaries he could to follow him by land. But the Illyrians, who had, unknown to him, declared for Pompey, fell unexpectedly upon him and killed him and his men, not one escaping. Marc Antony and Calenus, who went by sea, were in the greatest danger from one of Pompey's admirals; but had the good luck to bring their troops safe to shore at Nyphæum, in the neighbourhood of Apollonia. As soon as it was known that Antony was landed, Pompey marched to prevent his joining Cæsar. On the other hand Cæsar instantly decamped, and hastening to the relief of his lieutenant, joined him before Pompey came up. Then Pompey, not caring to engage them when united, retired to an advantageous post in the neighbourhood of Dyrrhachium, known by the name of *Asparagium*, and there encamped. Cæsar having thus at length got all his troops together, resolved to finish the war by one general action, and determine the fate of the world, either by his own death or by that of his rival. To this end he offered

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fered Pompey battle, and kept his army a great while drawn up in sight of the enemy. But Pompey declining an engagement, he decamped, and turned towards Dyrrhachium, as if he designed to surprise it, hoping by this means to draw Pompey into the plain. But Pompey, looking upon the taking of Dyrrhachium as a chimerical project, followed Cæsar at some distance, and letting him draw near to the city, encamped on a hill called *Petra*, which commanded the sea, whence he could be supplied with provisions from Greece and Asia while Cæsar was forced to bring corn by land from Epirus, at a vast expence, and through many dangers.

This inconvenience put Cæsar upon a new design, which was to surround an army far more numerous than his own, and, by shutting them up within a narrow tract of ground, distress them as much for want of forage as his troops were distressed for want of corn. Pursuant to this design, he drew a line of circumvallation from the sea quite round Pompey's camp, and kept him so closely blocked up, that though his men were plentifully supplied with provisions by sea, yet the horses of his army began soon to die in great numbers for want of forage. Cæsar's men, though in the utmost distress for want of corn, yet bore all with incredible cheerfulness; protesting that they would rather live upon the bark of trees than suffer Pompey to escape, now they had him in their power. Cæsar tells us, that in this extremity such of the army as had been in Sardinia found out the way of making bread of a certain herb called *clæra*, which they steeped in milk; and that when the enemy insulted them on account of the starving condition which they were in, they threw several of these loaves among them, to put them out of all hopes of subduing them by famine. "So long as the earth produces such roots (said they), we will not let Pompey escape." At length Pompey, alarmed at the distempers which began to prevail in his army, made several attempts to break through the barriers that inclosed him, but was always repulsed with loss. At length, being reduced to the utmost extremity for want of forage, he resolved at all events to force the enemy's lines and escape. With the assistance, therefore, and by the advice of two deserters, he embarked his archers, slingers, and light-armed infantry, and marching himself by land at the head of 60 cohorts, went to attack that part of Cæsar's lines which was next to the sea, and not yet quite finished. He set out from his camp in the dead of the night, and arriving at the post he designed to force by break of day, he began the attack by sea and land at the same time. The ninth legion, which defended that part of the lines, made for some time a vigorous resistance; but being attacked in the rear by Pompey's men, who came by sea, and landed between Cæsar's two lines, they fled with such precipitation, that the succours Marcellinus sent them from a neighbouring post could not stop them. The ensign who carried the eagle at the head of the routed legion was mortally wounded; but nevertheless, before he died, had presence of mind enough to consign the eagle to the cavalry of the party, desiring them to deliver it to Cæsar. Pompey's men pursued the fugitives, and made such a slaughter of them, that all the centurions of the first cohort were cut off except one. And now Pompey's army broke in like a torrent upon the posts Cæsar had fortified, and were advancing to attack Marcellinus, who guarded a neighbouring fort; but Marc Antony coming very seasonably to his relief with 12 cohorts, they thought it advisable to retire.

204 Besieges Pompey in his camp.

205 Is driven from some of his posts.

Soon after Cæsar himself arrived with a strong reinforcement, and posted himself on the shore, in order to prevent such attempts for the future. From this post he observed an old camp which he had made within the place where Pompey was inclosed, but afterwards abandoned. Upon his quitting it, Pompey had taken possession of it, and left a legion to guard it. This post Cæsar resolved to reduce, hoping to repair the loss he had sustained on this unfortunate day, by taking the legion which Pompey had posted there. Accordingly, he advanced secretly at the head of 33 cohorts in two lines: and arriving at the old camp before Pompey could have notice of his march, attacked it with great vigour, forced the first intrenchment, notwithstanding the brave resistance of Titus Pulcio, and penetrated to the second, whither the legion had retired. But here his fortune changed on a sudden. His right wing, in looking for an entrance into the camp, marched along the outside of a trench which Cæsar had formerly carried on from the left angle of his camp, about 400 paces, to a neighbouring river. This trench they mistook for the rampart of the camp; and being led away by that mistake from their left wing, they were soon after prevented from rejoining it by the arrival of Pompey, who came up at the head of a legion and a large body of horse. Then the legion which Cæsar had attacked taking courage, made a brisk sally, drove his men back to the first intrenchment which they had seized, and there put them in great disorder while they were attempting to pass the ditch. Pompey, in the mean time, falling upon them with his cavalry in flank, completed their defeat; and then flying to the enemy's right wing, which had passed the trench mentioned above, and was shut up between that and the ramparts of the old camp, made a most dreadful slaughter of them. The trench was filled with dead bodies, many falling into it in that disorder, and others passing over them and pressing them to death.

Cæsar defeated and in great danger.

In this distress, Cæsar did all he could to stop the flight of his legionaries, but to no purpose; the standard-bearers themselves threw down the Roman eagles when Cæsar endeavoured to stop them, and left them in the hands of the enemy, who on this occasion took 32 standards; a disgrace which Cæsar had never suffered before. He was himself in no small danger of falling by the hand of one of his own men, whom he took hold of when flying, bidding him stand and face about; but the man, apprehensive of the danger he was in, drew his sword, and would have killed him, had not one of his guards prevented the blow by cutting off his arm. Cæsar lost on this occasion 960 of his foot, 400 of his horse, 5 tribunes, and 32 centurions.

This loss and disgrace greatly mortified Cæsar, but did not discourage him. After he had by his lenity and eloquent speeches recovered the spirit of his troops, he decamped, and retired in good order to Apolloma, where he paid the army, and left his sick and wounded. From thence he marched into Macedon, where Scipio Metellus, Pompey's father-in-law, was encamped. He hoped either to draw his rival into some plain, or to overpower Scipio if not assisted. He met with great difficulties on his march, the countries through which he

207 He retrieves his affairs.

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he passed refusing to supply his army with provisions; to such a degree was his reputation sunk since his last defeat! On his entering Thessaly he was met by Domitius, one of his lieutenants, whom he had sent with three legions to reduce Epirus. Having now got all his force together, he marched directly to Gomphi, the first town of Thessaly, which had been formerly in his interest, but now declared against him. Whereupon he attacked it with so much vigour, that though the garrison was very numerous, and the walls were of an uncommon height, he made himself master of it in a few hours. From hence he marched to Metropolis, another considerable town of Thessaly, which immediately surrendered; as did all the other cities of the country, except Larissa, of which Scipio had made himself master.

On the other hand, Pompey being continually importuned by the senators and officers of his army, left his camp at Dyrrhachium, and followed Cæsar, firmly resolved not to give him battle, but rather to distress him by keeping close at his heels, straitening his quarters, and cutting off his convoys. As he had frequent opportunities of coming to an engagement, but always declined it, his friends and subalterns began to put ill constructions on his dilatoriness to his face.

208 Pompey resolves to come to an engagement.

These, together with the complaints of his soldiers, made him at length resolve to venture a general action. With this design he marched into a large plain near the cities of Pharsalia and Thebes; which latter was also called *Philippa*, from Philip king of Macedon, and the father of Perses, who, having reduced the Thebans, placed a colony of Macedonians in their city. This plain was watered by the Enipeus, and surrounded on all sides by high mountains; and Pompey, who was still averse from venturing an engagement, pitched his camp on the declivity of a steep mountain, in a place altogether inaccessible. There he was joined by Scipio his father-in-law, at the head of the legions which he had brought with him from Syria and Cilicia. But notwithstanding this reinforcement, he continued irresolute, and unwilling to put all to the issue of a single action; being still convinced of the wisdom of his maxim, that it was better to destroy the enemy by fatigues and want, than to engage an army of brave veterans, who were in a manner reduced to despair. As he put off from day to day, under various pretences, descending into the plain where Cæsar was encamped, his officers forced him to call a council of war, when all to a man were for venturing a general action the very next day. Thus was Pompey obliged to sacrifice his own judgment to the blind ardour of the multitude; and the necessary measures were taken for a general engagement.

209 Is totally defeated.

The event of this battle was in the highest degree fortunate for Cæsar *; who resolved to pursue his advantage, and follow Pompey to whatever country he should retire. Hearing, therefore, of his being at Amphipolis, he sent off his troops before him, and then embarked on board a little frigate in order to cross the Hellespont; but in the middle of the strait, he fell in with one of Pompey's commanders, at the head of ten ships of war. Cæsar, no way terrified at the superiority of his force, bore up to him, and commanded him to submit. The other instantly obeyed, awed by the terror of Cæsar's name, and surrendered himself and his fleet at discretion.

* See *Pharsalia*.

From thence he continued his voyage to Ephesus, then to Rhodes; and being informed that Pompey had been there before him, he made no doubt but that he was fled to Egypt; wherefore, losing no time, he set sail for that kingdom, and arrived at Alexandria with about 4000 men; a very inconsiderable force to keep such a powerful kingdom under subjection. But he was now grown so secure in his good fortune, that he expected to find obedience everywhere. Upon his landing, the first accounts he received were of Pompey's miserable end, who had been assassinated by orders of the treacherous king as soon as he went on shore; and soon after one of the murderers came with his head and ring as a most grateful present to the conqueror. But Cæsar turned away from it with horror, and shortly after ordered a magnificent tomb to be built to his memory on the spot where he was murdered; and a temple near the place, to Nemesis, who was the goddess that punished those that were cruel to men in adversity.

210 Is murdered in Egypt.

It should seem that the Egyptians by this time had some hopes of breaking off all alliance with the Romans; which they considered, as in fact it was, but a specious subjection. They first began to take offence at Cæsar's carrying the ensigns of Roman power before him as he entered the city. Photinus, the eunuch, also treated him with disrespect, and even attempted his life. Cæsar, however, concealed his resentment till he had a force sufficient to punish his treachery; and sending privately for the legions which had been formerly enrolled for Pompey's service, as being the nearest to Egypt, he in the mean time pretended to repose an entire confidence in the king's minister. However, he soon changed his manner when he found himself in no danger from his attempts: and declared, that, as being a Roman consul, it was his duty to settle the succession to the Egyptian crown.

211 The Egyptians quarrel with Cæsar,

There were at that time two pretenders to the crown of Egypt: Ptolemy, the acknowledged king; and the celebrated Cleopatra his sister; who, by the custom of the country, was also his wife, and by their father's will, shared jointly in the succession. However, not being contented with a bare participation of power, she aimed at governing alone; but being opposed in her views by the Roman senate, who confirmed her brother's title to the crown, she was banished into Syria with Arsinoe her younger sister.

Cæsar, however, gave her new hopes of obtaining the kingdom, and sent both for her and her brother to plead their cause before him. Photinus, the young king's guardian, who had long borne the most inveterate hatred as well to Cæsar as to Cleopatra, disdained this proposal, and backed his refusal by sending an army of 20,000 men to besiege him in Alexandria. Cæsar bravely repulsed the enemy for some time; but finding the city of too great extent to be defended by so small an army as he then had with him, he retired to the palace, which commanded the harbour, where he purposed to make a stand. Achillas, who commanded the Egyptians, attacked him there with great vigour, and still aimed at making himself master of the fleet that lay before the palace. Cæsar, however, too well knew the importance

212 and besiege him in Alexandria.

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importance of those ships in the hands of an enemy; and therefore burnt them all in spite of every effort to prevent it. He next possessed himself of the isle of Pharos, which was the key to the Alexandrian port, by which he was enabled to receive the supplies sent him from all sides; and in this situation he determined to withstand the united force of all the Egyptians.

In the mean time, Cleopatra having heard of the present turn in her favour, resolved to depend rather on Cæsar's favour for gaining the government than her own forces. She had, in fact, assembled an army in Syria to support her claims; but now judged it the wisest way to rely entirely on the decision of her self-elected judge. But no arts, as she justly conceived, were so likely to influence Cæsar, as the charms of her person. The difficulty was how to get at Cæsar, as her enemies were in possession of all the avenues that led to the palace. For this purpose, she went on board a small vessel, and in the evening landed near the palace; where, being wrapped up in a coverlet, she was carried by one Aspolodorus into the very chamber of Cæsar. Her address at first pleased him; but her caresses, which were carried beyond the bounds of innocence, entirely brought him over to second her claims.

While Cleopatra was thus employed in forwarding her own views, her sister Arsinoe was also strenuously engaged in the camp in pursuing a separate interest. She had found means, by the assistance of one Ganymede her confidant, to make a large division in the Egyptian army in her favour; and soon after caused Achillas to be murdered, and Ganymede to take the command in his stead, and to carry on the siege with greater vigour than before. Ganymede's principal effort was by letting in the sea upon those canals which supplied the palace with fresh water; but this inconvenience Cæsar remedied by digging a great number of wells. His next endeavour was to prevent the junction of Cæsar's 24th legion, which he twice attempted in vain. He soon after made himself master of a bridge which joined the isle of Pharos to the continent, from which post Cæsar was resolved to dislodge them. In the heat of action, some mariners came and joined the combatants; but being seized with a panic, instantly fled, and spread a general terror through the army. All Cæsar's endeavours to rally his forces were in vain, the confusion was past remedy, and numbers were drowned or put to the sword in attempting to escape; on which, seeing the irremediable disorder of his troops, he retired to a ship in order to get to the palace that was just opposite. However, he was no sooner on board than great crowds entered at the same time with him; upon which, apprehensive of the ship's sinking, he jumped into the sea, and swam 200 paces to the fleet that lay before the palace.

The Alexandrians, finding their efforts to take the palace ineffectual, endeavoured at least to get their king out of Cæsar's power, as he had seized upon his person in the beginning of their disputes. For this purpose they made use of their customary arts of dissimulation, professing the utmost desire of peace, and only wanting the presence of their lawful prince to give a sanction to the treaty. Cæsar, who was sensible of their perfidy, nevertheless concealed his suspicions, and gave them their king, as he was under no apprehensions from the abilities of a boy. Ptolemy, however, the instant he was set at liberty, instead of promoting peace, made every effort to give vigour to hostilities.

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213 He is at last relieved.

In this manner Cæsar was hemmed in for some time: but he was at last relieved from this mortifying situation by Mithridates Pergamenus, one of his most faithful partizans; who, collecting a numerous army in Syria, marched into Egypt, took the city of Pelusium, repulsed the Egyptian army with loss, and at last, joining with Cæsar, attacked their camp, and made a great slaughter of the Egyptians. Ptolemy himself, attempting to escape on board a vessel that was sailing down the river, was drowned by the ship's sinking; and Cæsar thus became master of all Egypt without any further opposition. He therefore appointed, that Cleopatra, with her younger brother, who was then but an infant, should jointly govern, according to the intent of their father's will; and drove out Arsinoe with Ganymede into banishment.

Cæsar now for a while seemed to relax from the usual activity of his conduct, captivated with the charms of Cleopatra. Instead of quitting Egypt to go and quell the remains of Pompey's party, he abandoned himself to his pleasures, passing whole nights in feasts with the young queen. He even resolved to attend her up the Nile into Ethiopia; but the brave veterans, who had long followed his fortune, boldly reprehended his conduct, and refused to be partners in so infamous an expedition. Thus, at length, roused from his lethargy, he left Cleopatra, by whom he had a son who was afterwards named *Cæsario*, in order to oppose Pharnaces the king of Pontus, who had now made some inroads upon the dominions of Rome. Here he was attended with the greatest success, as we have related under the article Pontus; and having settled affairs in this part of the empire, as well as time would permit, he embarked for Italy, where he arrived sooner than his enemies could expect, but not before his affairs there absolutely required his presence. He had been, during his absence, created consul for five years, dictator for one year, and tribune of the people for life. But Antony, who in the mean time governed in Rome for him, had filled the city with riot and debauchery, and many commotions ensued, which nothing but the arrival of Cæsar could appease. However, by his moderation and humanity, he soon restored tranquillity to the city, scarce making any distinction between those of his own and the opposite party. Thus having, by gentle means, restored his authority at home, he prepared to march into Africa, where Pompey's party had found time to rally under Scipio and Cato, assisted by Juba king of Mauritania. But the vigour of his proceedings had like to have been retarded by a mutiny in his own army. Those veteran legions, who had hitherto conquered all that came before them, began to murmur for not having received the rewards which they had expected for their past services, and now insisted upon their discharge. However, Cæsar found means to quell the mutiny; and then, according to his usual diligence, landed with a small party in Africa, the rest of the army following soon after. After many movements and skirmishes, he resolved at last to come to a decisive battle. For this purpose he invested the city of Thapsus, supposing that Scipio would attempt its relief, which turned out according to his expectations. Scipio, joining with the young king of Mauritania, advanced with his army, and encamping near

214 Arrives in Italy, and soon after undertakes an expedition into Africa.

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near Cæsar, they soon came to a general battle. Cæsar's success was as usual; the enemy received a complete and final overthrow, with little loss on his side. Juba, and Petreius his general, killed each other in despair; Scipio, attempting to escape by sea into Spain, fell in among the enemy, and was slain; so that of all the generals of that undone party, Cato was now alone remaining.

215 Defeats the partisans of Pompey.

This extraordinary man, having retired into Africa after the battle of Pharsalia, had led the wretched remains of that defeat through burning deserts and tracts infested with serpents of various malignity, and was now in the city of Utica, which he had been left to defend. Still, however, in love with even the show of Roman government, he had formed the principal citizens into a senate, and conceived a resolution of holding out the town. He accordingly assembled his senators upon this occasion, and exhorted them to stand a siege; but finding his admonitions ineffectual, he stabbed himself with his sword *. Upon his death, the war in Africa being completed, Cæsar returned in triumph to Rome; and, as if he had abridged all his former triumphs only to increase the splendour of this, the citizens were astonished at the magnificence of the procession, and the number of the countries he had subdued. It lasted four days: the first was for Gaul, the second for Egypt, the third for his victories in Asia, and the fourth for that over Juba in Africa. To every one of his soldiers he gave a sum equivalent to about 150l. of our money, double that sum to the centurions, and four times as much to the superior officers. The citizens also shared his bounty; to every one of whom he distributed 10 bushels of corn, 10 pounds of oil, and a sum of money equal to about two pounds sterling of ours. He, after this, entertained the people at about 20,000 tables, treated them with the combat of gladiators, and filled Rome with a concourse of spectators from every part of Italy.

216 Cato kills himself.

* See *Cato*.

217 Honours heaped upon him at Rome.

The people now seemed eager only to find out new modes of homage and unusual methods of adulation for their great enslaver. He was created, by a new title, *Magister Morum*, or Master of the Morals of the People; he received the title of *Emperor, Father of his country*; his person was declared sacred; and, in short, upon him alone were devolved for life all the great dignities of the state. It must be owned, however, that no sovereign could make better use of his power. He immediately began his empire by repressing vice and encouraging virtue. He communicated the power of judicature to the senators and the knights alone, and by many sumptuary laws restrained the scandalous luxuries of the rich. He proposed rewards to all such as had many children: and took the most prudent methods of repeopling the city, that had been exhausted in the late commotions; and besides his other works, he greatly reformed the kalendar.

Having thus restored prosperity once more to Rome, he again found himself under a necessity of going into Spain, to oppose an army which had been raised there under the two sons of Pompey, and Labienus his former general. He proceeded in this expedition with his usual celerity, and arrived in Spain before the enemy thought him yet departed from Rome. Cneius and Sextus, Pompey's sons, profiting by their unhappy father's example, resolved as much as possible to protract the war; so that the first operations of the two armies were spent in sieges and fruitless attempts to surprise each other. At length Cæsar, after taking many cities from the enemy, and pursuing young Pompey with unwearied perseverance, compelled him to come to a battle upon the plains of Munda.

After a most obstinate engagement, Cæsar gained a complete victory (see MUNDA); and having now subdued all his enemies, he returned to Rome for the last time to receive new dignities and honours, and to enjoy an accumulation of all the great offices of the state. Still, however, he pretended to a moderation in the enjoyment of his power; he left the consuls to be named by the people; but as he possessed all the authority of the office, it from this time began to sink into contempt. He enlarged the number of senators also; but as he had previously destroyed their power, their new honours were but empty titles. He took care to pardon all who had been in arms against him, but not till he had deprived them of the power of resistance. He even set up once more the statues of Pompey; which, however, as Cicero observed, he only did to secure his own. The rest of this extraordinary man's life was employed for the advantage of the state. He adorned the city with magnificent buildings; he rebuilt Carthage and Corinth, sending colonies to both cities; he undertook to level several mountains in Italy, to drain the Pontine marshes near Rome, and designed to cut through the Isthmus of Peloponnesus. Thus he formed mighty projects and designs beyond the limits of the longest life; but the greatest of all was his intended expedition against the Parthians; by which he designed to revenge the death of Crassus; then to pass through Hyrcania, and enter Scythia along the banks of the Caspian sea; from thence to open himself a way through the immeasurable forests of Germany into Gaul, and so return to Rome. These were the aims of ambition: but the jealousy of a few individuals put an end to them all.

218 Becomes master of the whole empire by his victory at Munda.

219 His vast designs.

The senate, with an adulation which marked the degeneracy of the times, continued to load Cæsar with fresh honours, and he continued with equal vanity to receive them. They called one of the months of the year after his name; they stamped money with his image; they ordered his statue to be set up in all the cities of the empire; they instituted public sacrifices on his birthday; and talked, even his life-time, of enrolling him in the number of their gods. Antony, at one of their public festivals, foolishly ventured to offer him a diadem; but he put it back again, refusing it several times, and receiving at every refusal loud acclamations from the people. One day, when the senate ordered him some particular honours, he neglected to rise from his seat; and from that moment is said to have been marked for destruction. It began to be rumoured that he intended to make himself king; for though in fact he already was so, the people, who had an utter aversion to the name, could not bear his assuming the title. Whether he really designed to assume that empty honour must now for ever remain a secret; but certain it is, that the unsuspecting openness of his conduct marked something like a confidence in the innocence of his intentions. When informed by those about him of the jealousies of many persons who envied his power, he was heard to say, That he had rather die once by treason, than to live continually in the apprehension of it: and to convince

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vince the world how little he had to apprehend from his enemies, he disbanded his company of Spanish guards, which facilitated the enterprise against his life

220 A conspiracy formed against him.

A deep-laid conspiracy was formed against him, composed of no less than 60 senators. At the head of this conspiracy was Brutus, whose life Cæsar had spared after the battle of Pharsalia, and Cassius, who had been pardoned soon after, both prætors for the present year. Brutus made it his chief glory to have been descended from that Brutus who first gave liberty to Rome; and from a desire of following his example, broke all the ties of private friendship, and entered into a conspiracy which was to destroy his benefactor. Cassius, on the other hand, was impetuous and proud, and hated Cæsar's person still more than his cause. He had often sought an opportunity of gratifying his revenge by assassination, which took rise rather from private than public motives.

The conspirators, to give a colour of justice to their proceedings, remitted the execution of this design to the ides of March, the day on which it was reported that Cæsar was to be offered the crown. The augurs had foretold that this day would be fatal to him; and the night preceding, he heard his wife Calphurnia lamenting in her sleep, and being awakened, she confessed to him that she dreamt of his being assassinated in her arms. These omens, in some measure, began to change his intentions of going to the senate, as he had resolved, that day; but one of the conspirators coming in, prevailed upon him to keep his resolution, telling him of the reproach which would attend his staying at home till his wife had lucky dreams, and of the preparations that were made for his appearance. As he went along to the senate, a slave, who hastened to him with information of the conspiracy, attempted to come near him, but could not for the crowd. Artemidorus, a Greek philosopher, who had discovered the whole plot, delivered to him a memorial, containing the heads of his information; but Cæsar gave it, with other papers, to one of his secretaries without reading, as was usual in things of this nature. As soon as he had taken his place in the senate, the conspirators came near him, under a pretence of saluting him; and Cimber, who was one of them, approached in a suppliant posture, pretending to sue for his brother's pardon, who was banished by his order. All the conspirators seconded him with great tenderness; and Cimber, seeming to sue with still greater submission, took hold of the bottom of his robe, holding him so as to prevent his rising. This was the signal agreed on. Casca, who was behind, stabbed him, though slightly, in the shoulder. Cæsar instantly turned round, and with the style of his tablet wounded him in the arm. However, all the conspirators were now alarmed; and inclosing him round, he received a second stab from an unknown hand in the breast, while Cassius wounded him in the face. He still defended himself with great vigour, rushing among them, and throwing down such as opposed him, till he saw Brutus among the conspirators, who, coming up, struck his dagger in his thigh. From that moment Cæsar thought no more of defending himself, but looking upon this conspirator, cried out, "And you too, Brutus!" Then covering his head, and spreading his robe before him in order to fall with greater decency, he sunk down at the base of Pompey's statue, after receiving three-and-twenty wounds, in the 56th year of his age, and 4th of his reign.

221 He is murdered.

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222 Great confusion occasioned by his death.

As soon as the conspirators had dispatched Cæsar, they began to address themselves to the senate, in order to vindicate the motives of their enterprise, and to excite them to join in procuring their country's freedom, but all the senators who were not accomplices fled with such precipitation, that the lives of some of them were endangered in the throng. The people also being now alarmed, left their usual occupations, and ran tumultuously through the city; some actuated by their fears, and still more by a desire of plunder. In this state of confusion, the conspirators all retired to the capitol, and guarded its accesses by a body of gladiators which Brutus had in pay. It was in vain they alleged they only struck for freedom, and that they killed a tyrant who usurped the rights of mankind: the people, accustomed to luxury and ease, little regarded their professions, dreading more the dangers of poverty than of subjection.

The friends of the late dictator now began to find that this was the time for coming into greater power than before, and for satisfying their ambition under the veil of promoting justice. Of this number was Antony, whom we have already seen acting as a lieutenant under Cæsar. He was a man of moderate abilities and excessive vices; ambitious of power, but skilled in war, to which he had been trained from his youth. He was consul for this year; and resolved, with Lepidus, who was fond of commotions like himself, to seize this opportunity of assuming the sovereign power. Lepidus, therefore, took possession of the forum with a band of soldiers at his devotion; and Antony, being consul, was permitted to command them. Their first step was to possess themselves of all Cæsar's papers and money; and the next to convene the senate, in order to determine whether Cæsar had been a legal magistrate or a tyrannical usurper, and whether those who killed him merited rewards or punishments. There were many of these who had received their promotions from Cæsar, and had acquired large fortunes in consequence of his appointments: to vote him an usurper, therefore, would be to endanger their property; and yet to vote him innocent, might endanger the state. In this dilemma they seemed willing to reconcile extremes; wherefore they approved all the acts of Cæsar, and yet granted a general pardon to all the conspirators.

223 The conspirators pardoned by the senate.

This decree was very far from giving Antony satisfaction, as it granted security to a number of men who were the avowed enemies of tyranny, and who would be foremost in opposing his schemes of restoring absolute power. As therefore the senate had ratified all Cæsar's acts without distinction, he formed a scheme upon this of making him rule when dead as imperiously as he had done when living. Being, as was said, possessed of Cæsar's books of accounts, he so far gained upon his secretary as to make him insert whatever he thought proper. By these means, great sums of money, which Cæsar never would have bestowed, were here distributed among the people; and every man who was averse to republican principles was here sure of finding a gratuity. He then demanded that Cæsar's funeral obsequies should be performed; which the senate now could not decently forbid, as they had never declared him a tyrant. Accordingly, the body was brought forth

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224 Antony inflames the people.

forth into the forum with the utmost solemnity; and Antony began his operations upon the passions of the people, by the prevailing motives of private interest. He first read Cæsar's will, in which he had left Octavius, his sister's grandson, his heir, permitting him to take the name of *Cæsar*; and three parts of his private fortune Brutus was to inherit in case of his death The Roman people were left the gardens which he had on the other side the Tiber; and every citizen, in particular, was to receive 300 sesterces. This last bequest not a little contributed to increase the people's affection for their late dictator; they now began to consider Cæsar as a father, who, not satisfied with doing them the greatest good while living, thought of benefiting them even after his death. As Antony continued reading, the multitude began to be moved, and sighs and lamentations were heard from every quarter. Antony, seeing the audience favourable to his designs, now began to address the assembly in a more pathetic strain: he presented before them Cæsar's bloody robe, and, as he unfolded it, took care they should observe the number of stabs in it: he then displayed an image, which to them appeared the body of Cæsar, all covered with wounds. The people could now no longer contain their indignation; they unanimously cried out for revenge; all the old soldiers who had fought under him, burnt, with his body, their coronets, and other marks of conquest with which he had honoured them. A great number of the first matrons in the city threw in their ornaments also; till at length, rage succeeding to sorrow, the multitude ran with flaming brands from the pile to set fire to the conspirators houses. In this rage of resentment, meeting with one Cinna, whom they mistook for another of the same name who was in the conspiracy, they tore him in pieces. The conspirators themselves, however, being well guarded, repulsed the multitude with no great trouble; but perceiving the rage of the people, they thought it safest to retire from the city. Divine honours were then granted him; and an altar was erected on the place where his body was burnt, where afterwards was erected a column inscribed, *To the father of his country.*

225 He endeavours to engross the power entirely into his own hand.

In the mean time Antony, who had excited this flame, resolved to make the best of the occasion. Having gained the people by his zeal in Cæsar's cause, he next endeavoured to bring over the senate, by a seeming concern for the freedom of the state. He therefore proposed to recal Sextus, Pompey's only remaining son, who had concealed himself in Spain since the death of his father: and to grant him the command of all the fleets of the empire. His next step to their confidence, was the quelling a sedition of the people, who rose to revenge the death of Cæsar, and putting their leader Amathus to death, who pretended to be the son of Marius. He after this pretended to dread the resentment of the multitude, and demanded a guard for the security of his person. The senate granted his request; and, under this pretext, he drew round him a body of 6000 resolute men, attached to his interest, and ready to execute his commands. Thus he continued every day making rapid strides to absolute power; all the authority of government was lodged in his hands and those of his two brothers alone, who shared among them the consular, tribunitian, and prætorian power. His vows to revenge Cæsar's death seemed either postponed, or totally forgotten; and his only aim seemed to be to confirm himself in that power which he had thus artfully acquired. But an obstacle to his ambition seemed to arise from a quarter on which he least expected it This was from Octavius or Octavianus Cæsar, afterwards called *Augustus*, who was the grand-nephew and adopted son of Cæsar, and was at Apollonia when his kinsman was slain. He was then about 18 years old, and had been sent to that city to improve himself in the study of Grecian literature. Upon the news of Cæsar's death, notwithstanding the earnest dissuasions of all his friends, he resolved to return to Rome, to claim the inheritance, and revenge the death of his uncle. From the former professions of Antony, he expected to find him a warm assistant to his aims; and he doubted not, by his concurrence, to take signal vengeance on all who had a hand in the conspiracy. However, he was greatly disappointed. Antony, whose projects were all to aggrandize himself, gave him but a very cold reception, and, instead of granting him the fortune left him by the will, delayed the payment of it upon various pretences, hoping to check his ambition by limiting his circumstances. But Octavianus, instead of abating his claims, even sold his own patrimonial estate, to pay such legacies as Cæsar had left, and particularly that to the people. By these means he gained a degree of popularity, which his enemies vainly laboured to diminish, and which in fact he had many other methods to procure. His conversation was elegant and insinuating, his face comely and graceful, and his affection to the late dictator so sincere, that every person was charmed either with his piety or his address. But what added still more to his interest was the name of Cæsar, which he had assumed, and, in consequence of which, the former followers of his uncle now flocked in great numbers to him. All these he managed with such art, that Antony now began to conceive a violent jealousy for the talents of his young opponent, and secretly laboured to counteract all his designs. In fact, he did not want reason; for the army near Rome, that had long wished to see the conspirators punished, began to turn from him to his rival, whom they saw more sincerely bent on gratifying their desires. Antony having procured also the government of Hither Gaul from the people, two of his legions that he had brought home from his former government of Macedonia, went over to Octavianus, notwithstanding all his remonstrances to detain them. This produced, as usual, interviews, complaints, recriminations, and pretended reconciliations, which only tended to widen the difference; so that, at length, both sides prepared for war. Thus the state was divided into three distinct factions; that of Octavianus, who aimed at procuring Cæsar's inheritance, and revenging his death; that of Antony, whose sole view was to obtain absolute power; and that of the conspirators, who endeavoured to restore the senate to its former authority.

226 Is opposed by Octavianus.

Antony being raised by the people to his new government of Cisalpine Gaul, contrary to the inclinations of the senate, resolved to enter upon his province immediately, and oppose Brutus, who commanded a small body of troops there, while his army was yet entire. He accordingly left Rome, and marching thither, commanded Brutus to depart. Brutus, being unable

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unable to oppose him, retired with his forces; but being pursued by Antony, he was at last besieged in the city of Mutina, of which he sent word to the senate.

In the mean while, Octavianus, who by this time had raised a body of 10,000 men, returned to Rome; and being resolved, before he attempted to take vengeance on the conspirators, if possible to diminish the power of Antony, began by bringing over the senate to second his designs. In this he succeeded by the credit of Cicero, who had long hated Antony because he thought him the enemy of the state. Accordingly, by means of his eloquence, a decree was passed, ordering Antony to raise the siege of Mutina, to evacuate Cisalpine Gaul, and to await the further orders of the senate upon the banks of the Rubicon. Antony treated the order with contempt; and instead of obeying, began to show his displeasure at being hitherto so submissive. Nothing now therefore remained for the senate but to declare him an enemy to the state, and to send Octavianus, with the army he had raised, to curb his insolence. The latter was very ready to offer his army for this expedition, in order to revenge his own private injuries, before he undertook those of the public. The two consuls, Hirtius and Pansa, joined all their forces; and thus combined they marched at the head of a numerous army, against Antony, into Cisalpine Gaul. After one or two ineffectual conflicts, both armies came to a general engagement; in which Antony was defeated, and compelled to fly to Lepidus, who commanded a body of forces in Further Gaul. This victory, however, which promised the senate so much success, produced effects very different from their expectations. The two consuls were mortally wounded; but Pansa, previous to his death, called Octavianus to his bed-side, and advised him to join with Antony, telling him, that the senate only desired to depress both, by opposing them to each other. The advice of the dying consul sunk deep on his spirits; so that from that time he only sought a pretext to break with them. Their giving the command of a party of his army to Decimus Brutus, and their denying him a triumph soon after, served to alienate his mind entirely from the senate, and made him resolve to join Antony and Lepidus. He was willing, however, to try the senate thoroughly, before he came to an open rupture; wherefore he sent to demand the consulship, which was refused him. He then thought himself obliged to keep no measures with that assembly, but privately sent to sound the inclinations of Antony and Lepidus, concerning a junction of forces, and found them as eager to assist as the senate was to oppose him. Antony was, in fact, the general of both armies, and Lepidus was only nominally so, for his soldiers refused to obey him upon the approach of the former. But being assured of the assistance of Octavianus upon their arrival in Italy, they soon crossed the Alps with an army of 17 legions, breathing revenge against all who had opposed their designs.

227 A war breaks out between them.

The senate now began, too late, to perceive their error in disobliging Octavianus; and therefore gave him the consulship which they had so lately refused, and, to prevent his joining with Antony, flattered him with new honours, giving him a power superior to all law. The first use Octavianus made of his new authority was to procure a law for the condemnation of Brutus and Cassius; after which, he joined his forces with those of Antony and Lepidus.

The meeting of these three usurpers of their country's freedom was near Mutina, upon a little island of the river Panarus. Their mutual suspicions were the cause of their meeting in this place. Lepidus first entered, and, finding all things safe, made the signal for the other two to approach. Octavianus began the conference, by thanking Antony for his zeal in putting Decimus Brutus to death; who, being abandoned by his army, was taken as he was designing to escape into Macedonia, and beheaded by Antony's command. Their conference lasted for three days; and the result of it was, that the supreme authority should be lodged in their hands, under the title of the *triumvirate*, for the space of five years; that Antony should have Gaul; Lepidus, Spain; and Octavianus, Africa, and the Mediterranean islands. As for Italy, and the eastern provinces, they were to remain in common, until their general enemy was entirely subdued. But the last article of their union was a dreadful one. It was agreed that all their enemies should be destroyed; of which each presented a list. In these were comprised not only the enemies, but the friends of the triumvirate, since the partisans of the one were often found among the opposers of the others. Thus Lepidus gave up his brother Paulus to the vengeance of his colleague; Antony permitted the proscription of his uncle Lucius; and Octavianus delivered up the great Cicero. The most sacred rights of nature were violated; 300 senators, and above 2000 knights, were included in this terrible proscription; their fortunes were confiscated, and their murderers enriched with the spoil. Rome soon felt the effects of this infernal union, and the horrid cruelties of Marius and Sylla were renewed. As many as could escape the cruelty of the triumvirs, fled thither into Macedonia to Brutus, or found refuge with young Pompey, who was now in Sicily, and covered the Mediterranean with his numerous navy. Their cruelties were not aimed at the men alone: but the softer sex were in danger of being marked as objects either of avarice or resentment. They made out a list of 1400 women of the best quality, and the richest in the city, who were ordered to give in an account of their fortunes, to be taxed in proportion. But this seemed so unpopular a measure, and was so firmly opposed by Hortensia, who spoke against it, that, instead of 1400 women, they were content to tax only 400. However, they made up the deficiency, by extending the tax upon men; near 100,000, as well citizens as strangers, were compelled to furnish supplies to the subversion of their country's freedom. At last, both the avarice and vengeance of the triumviri seemed fully satisfied, and they went into the senate to declare that the proscription was at an end; and thus having deluged the city with blood, Octavianus and Antony, leaving Lepidus to defend Rome in their absence, marched with their army to oppose the conspirators, who were now at the head of a formidable army in Asia.

228 They are reconciled, and divide the empire with Lepidus.

229 The second triumvirate.

230 Cruelties of the triumvirs.

Brutus and Cassius, the principal of these, upon the death of Cæsar, being compelled to quit Rome, went into Greece, where they persuaded the Roman students at Athens to declare in the cause of freedom; then

231 They are opposed by Brutus and Cassius.

parting

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parting, the former raised a powerful army in Macedonia and the adjacent countries, while the latter went into Syria, where he soon became master of 12 legions, and reduced his opponent Dolabella to such straits as to kill himself. Both armies soon after joining at Smyrna, the sight of such a formidable force began to revive the declining spirits of the party, and to re-unite the two generals still more closely, between whom there had been some time before a slight misunderstanding. In short, having quitted Italy like distressed exiles, without having one single soldier or one town that owned their command, they now found themselves at the head of a flourishing army, furnished with all the necessaries for carrying on the war, and in a condition to support a contest where the empire of the world depended on the event. This success in raising levies was entirely owing to the justice, moderation, and great humanity of Brutus, who in every instance seemed studious of the happiness of his country.

It was in this flourishing state of their affairs that the conspirators had formed a resolution of going against Cleopatra, who on her side, had made great preparations to assist their opponents. However, they were diverted from this purpose by an information that Octavianus and Antony were now upon their march, with 40 legions to oppose them. Brutus now, therefore, moved to have their army pass over into Greece and Macedonia, and there meet the enemy; but Cassius so far prevailed as to have the Rhodians and Lycians first reduced, who had refused their usual contribution. This expedition was immediately put in execution, and extraordinary contributions were raised by that means, the Rhodians having scarce any thing left but their lives *. The Lycians suffered still more severely; for having shut themselves up in the city of Xanthus, they defended the place against Brutus with such fury, that neither his art nor intreaties could prevail upon them to surrender. At length, the town being set on fire by their attempting to burn the works of the Romans, Brutus, instead of laying hold on this opportunity to storm the place, made every effort to preserve it, intreating his soldiers to try all means of extinguishing the fire: but the desperate frenzy of the citizens was not to be mollified. Far from thinking themselves obliged to their generous enemy for the efforts which were made to save them, they resolved to perish in the flames. Wherefore, instead of extinguishing, they did all in their power to augment the fire, by throwing in wood, dry reeds, and all kinds of fuel. Nothing could exceed the distress of Brutus upon seeing the townsmen thus resolutely bent on destroying themselves: he rode about the fortifications, stretching out his hands to the Xanthians, and conjuring them to have pity on themselves and their city; but, insensible to his expostulations, they rushed into the flames with desperate obstinacy, and the whole soon became an heap of undistinguishable ruin. At this horrid spectacle, Brutus offered a reward to every soldier who would bring him a Lycian alive. The number of those whom it was possible to save from their own fury amounted to no more than 150.

* See *Rhodes*.

Brutus and Cassius met once more at Sardis, where, after the usual ceremonies were passed between them, they resolved to have a private conference together, when, after much altercation, they were at last perfectly reconciled. After which, night coming on, Cassius invited Brutus and his friends to an entertainment. Upon retiring home it was, that Brutus, as Plutarch tells the story, saw a spectre in his tent. It was in the dead of the night, when the whole camp was perfectly quiet, that Brutus was employed in reading by a lamp that was just expiring. On a sudden he thought he heard a noise as if somebody entered: and looking towards the door, he perceived it open. A gigantic figure, with a frightful aspect, stood before him, and continued to gaze upon him with silent severity. At last Brutus had courage to speak to it: "Art thou a dæmon or a mortal man? and why comest thou to me?" "Brutus," replied the phantom, "I am thy evil genius, thou shalt see me again at Philippi." "Well then," answered Brutus, without being discomposed, "we shall meet again." Upon which the phantom vanished; and Brutus calling to his servants, asked if they had seen any thing: to which, replying in the negative, he again resumed his studies. But as he was struck with so strange an occurrence, he mentioned it the next day to Cassius, who, being an Epicurean, ascribed it to the effect of imagination too much exercised by vigilance and anxiety. Brutus appeared satisfied with this solution of his late terrors; and, as Antony and Octavianus were now advanced into Macedonia, they soon after passed over into Thrace, and advanced to the city of Philippi, near which the forces of the triumvirs were posted.

232 Brutus sees a spectre.

A battle soon ensued; which the republicans were defeated, and Cassius killed, as is related in the article Philippi.

233 The republicans defeated.

The first care of Brutus, when he became the sole general, was to assemble the dispersed troops of Cassius, and animate them with fresh hopes of victory. As they had lost all they possessed by the plundering of their camp, he promised them 2000 denarii each man to make up their losses. This once more inspired them with new ardour; they admired the liberality of their general, and with loud shouts proclaimed his former intrepidity. Still, however, he had not confidence sufficient to face the adversary, who offered him battle the ensuing day. His aim was to starve his enemies, who were in extreme want of provisions, their fleet having been lately defeated. But his single opinion was overruled by the rest of his army, who now grew every day more confident of their strength, and more arrogant to their new general. He was, therefore, at last, after a respite of 20 days, obliged to comply with their solicitations to try the fate of the battle. Both armies being drawn out, they remained a long while opposite to each other without offering to engage. It is said that he himself had lost much of his natural ardour by having again seen the spectre the night preceding: however, he encouraged his men as much as possible, and gave the signal for battle within three hours of sunset. Fortune again declared against him; and the two triumvirs expressly ordered by no means to suffer the general to escape, for fear he should renew the war. Thus the whole body of the enemy seemed chiefly intent on Brutus alone, and his capture seemed inevitable. In this deplorable exigence, Lucilius his friend resolved, by his own death, to effect the general's delivery. Upon perceiving a body of Thracian horse closely

234 They are defeated a second time.

closely pursuing Brutus, and just upon the point of taking him, he boldly threw himself in their way, telling them that he was Brutus. The Thracians, overjoyed with so great a prize, immediately dispatched some of their companions, with the news of their success, to the army. Upon which the ardour of the pursuit now abating, Antony marched out to meet his prisoner; some silently deploring the fate of so virtuous a man; others reproaching that mean desire of life for which he consented to undergo captivity. Antony now seeing the Thracians approach, began to prepare himself for the interview; but the faithful Lucilius, advancing with a cheerful air, owned the deceit that he had put upon him: on which the triumvir, struck with so much fidelity, pardoned him upon the spot; and from that time forward loaded him with benefits, and honoured him with his friendship.

In the mean time Brutus, with a small number of friends, passed over a rivulet, and, night coming on, sat down under a rock which concealed him from the pursuit of the enemy. After taking breath for a little time, he sent out one Statilius to give him some information of those that remained; but he never returned, being killed by a party of the enemy's horse. Brutus judging very rightly of his fate, now resolved to die likewise, and spoke to those who stood round him to lend him their last sad assistance. None of them, however, would render him so melancholy a piece of service. At last one Strato, averting his head, presented the sword's point to Brutus; who threw himself upon it, and immediately expired.

235 Brutus kills himself.

From the moment of Brutus's death the triumviri began to act as sovereigns, and to divide the Roman dominions between them, as theirs by right of conquest. However, though there were apparently three who thus participated all the power, yet, in fact, only two were actually possessed of it; since Lepidus was at first admitted merely to curb the mutual jealousy of Antony and Octavianus, and was possessed neither of interest in the army nor authority among the people. Their first care was to punish those whom they had formerly marked for vengeance. The head of Brutus was sent to Rome to be thrown at the foot of Cæsar's statue. His ashes, however, were sent to his wife Portia, Cato's daughter, who afterwards killed herself by swallowing burning coals. It is observed, that of all those who had a hand in the death of Cæsar, not one died a natural death.

236 Antony's extravagance.

The power of the triumvir being thus established upon the ruins of the commonwealth, Antony went into Greece, and spent some time at Athens, conversing among the philosophers, and assisting at their disputes in person. From thence he passed over into Asia, where all the monarchs of the east, who acknowledged the Roman power, came to pay him their obedience. In this manner he proceeded from kingdom to kingdom, attended by a crowd of sovereigns, exacting contributions, distributing favours, and giving away crowns with capricious insolence. He presented the kingdom of Cappadocia to Sysenes, in prejudice of Ariarathes, only because he found pleasure in the beauty of Glaphyra, the mother of the former. He settled Herod in the kingdom of Judea, and supported him against every opposer. But among all the sovereigns of the east who shared his favours, none had so large a part as Cleopatra, the celebrated queen of Egypt.

It happened that Serapion, her governor in the island of Cyprus, had formerly furnished some succours to the conspirators; and it was thought proper that she should answer for his conduct on that occasion. Accordingly, having received orders from Antony to come and clear herself of this imputation of infidelity, she readily complied, equally conscious of the goodness of her cause and the power of her beauty. She had already experienced the force of her charms upon Cæsar and Pompey's eldest son; and the addition of a few years since that time had not impaired their lustre. Antony was now in Tarsus, a city of Cilicia, when Cleopatra resolved to attend his court in person. She sailed down the river Cydnus, at the mouth of which the city stood, with the most sumptuous pageantry. Her galley was covered with gold; the sails were of purple, large, and floating in the wind. The oars of silver kept time to the sound of flutes and cymbals. She herself lay reclined on a couch spangled with stars of gold, and with such ornaments as poets and painters had usually ascribed to Venus. On each side were boys like cupids, who fanned her by turns; while the most beautiful nymphs, dressed like Nereids and Graces, were placed at proper distances around her. Upon the banks of the river were kept burning the most exquisite perfumes, while an infinite number of people gazed upon the sight. Antony was captivated with her beauty; and, leaving all his business to satisfy his passion, shortly after followed her into Egypt.

237 Has an interview with Cleopatra.

While he thus remained idle, Octavianus, who took upon him to lead back the veteran troops and settle them in Italy, was assiduously employed in providing for their subsistence. He had promised them lands at home, as a recompense for their past services; but they could not receive new grants, without turning out the former inhabitants. In consequence of this, multitudes of women, with children in their arms, whose tender years and innocence excited universal compassion, daily filled the temples and the streets with their distresses. Numbers of husbandmen and shepherds came to deprecate the conqueror's intention, or to obtain an habitation in some other part of the world. Amongst this number was Virgil the poet, who in an humble manner begged permission to retain his patrimonial farm: Virgil obtained his request; but the rest of his countrymen, of Mantua and Cremona, were turned out without mercy.

238 Miseries sustained by the Romans.

Italy and Rome now felt the most extreme miseries; the insolent soldiers plundered at will; while Sextus Pompey, being master of the sea, cut off all foreign communication, and prevented the people's receiving their usual supplies of corn. To these mischiefs were added the commencement of another civil war. Fulvia, the wife of Antony, who had been left behind him at Rome, had felt for some time all the rage of jealousy, and resolved to try every method of bringing back her husband from the arms of Cleopatra. She considered a breach with Octavianus as the only probable means of rousing him from his lethargy; and accordingly, with the assistance of Lucius her brother-in-law, who was then consul, and entirely devoted to her interest, she began to sow the seeds of dissension. The pretext was that Antony should have a share in the distribution of lands

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lands as well as Octavianus. This produced some negociations between them; Octavianus offered to make the veterans themselves umpires in the dispute. Lucius refused to acquiesce; and being at the head of more than six legions, mostly composed of such as had been dispossessed of their lands, he resolved to compel Octavianus to accept of whatever terms he should offer. Thus a new war was excited between Octavianus and Antony; or, at least, the generals of the latter assumed the sanction of his name. Octavianus, however, proved victorious: Lucius was hemmed in between two armies, and constrained to retreat to Perusia, a city of Etruria, where he was closely besieged by the opposite party. He made many desperate sallies, and Fulvia did all in her power to relieve him, but without success. He was at last, therefore, reduced to such extremity by famine, that he came out in person and delivered himself up to the mercy of the conqueror. Octavianus received him very honourably, and generously pardoned him and all his followers. Thus having concluded the war in a few months, he returned in triumph to Rome.

Antony, who, during this interval, was revelling in all the studied luxuries procured him by his insidious mistress, having heard of his brother's overthrow, and his wife's being compelled to leave Italy, was resolved to oppose Octavianus without delay. He accordingly sailed at the head of a considerable fleet from Alexandria to Tyre, from thence to Cyprus and Rhodes, and had an interview with Fulvia his wife at Athens. He much blamed her for occasioning the late disorders, testified the utmost contempt for her person, and, leaving her upon her death-bed at Sicyon, hastened into Italy to fight Octavianus. They both met at Brundusium; and it was now thought that the flames of a civil war were going to blaze out once more. The forces of Antony were numerous, but mostly newly raised; however, he was assisted by Sextus Pompeius, who in these oppositions of interests was daily coming into power. Octavianus was at the head of those veterans who had always been irresistible, but who seemed no way disposed to fight against Antony their former general. A negociation was therefore proposed; and a reconciliation was effected. All offences and affronts were mutually forgiven; and to cement the union, a marriage was concluded between Antony and Octavia, the sister of Octavianus. A new division of the Roman empire was made between them; Octavianus was to have the command of the west, Antony of the east, while Lepidus was obliged to content himself with the provinces in Africa. As for Sextus Pompeius, he was permitted to retain all the islands he had already possessed, together with Peloponnesus: he was also granted the privilege of demanding the consulship in his absence, and of discharging that office by any of his friends. It was likewise stipulated to leave the sea open, and pay the people what corn was due out of Sicily. Thus a general peace was concluded, to the great satisfaction of the people, who now expected a cessation from all their calamities.

239 The empire divided anew.

This calm seemed to continue for some time: Antony led his forces against the Parthians, over whom his lieutenant, Ventidius, had gained great advantages. Octavianus drew the greatest part of his army into Gaul, where there were some disturbances; and Pompey went to secure his newly ceded province to his interest. It was on this quarter that fresh motives were given for renewing the war. Antony, who was obliged by treaty to quit Peloponnesus, refused to evacuate it till Pompey had satisfied him for such debts as were due to him from the inhabitants. This Pompey would by no means comply with; but immediately fitted out a new fleet, and renewed his former enterprises, by cutting off such corn and provisions as were consigned to Italy. Thus the grievances of the poor were again renewed; and the people began to complain, that instead of three tyrants they were now oppressed by four.

In this exigence, Octavianus, who had long meditated the best means of diminishing the number, resolved to begin by getting rid of Pompey, who kept the state in continual alarms. He was master of two fleets; one of which he had caused to be built at Ravenna; and another which Menodorus, who revolted from Pompey, brought to his aid. His first attempt was to invade Sicily; but being overpowered in his passage by Pompey, and afterwards shattered in a storm, he was obliged to defer his designs to the ensuing year. During this interval he was reinforced by a fleet of 120 ships, given him by Antony, with which he resolved once more to invade Sicily on three several quarters. But fortune seemed still determined to oppose him. He was a second time disabled and shattered by a storm: which so raised the vanity of Pompey, that he began to style himself the *son of Neptune*. However, Octavianus was not to be intimidated by any disgraces; for having shortly refitted his navy, and recruited his forces, he gave the command of both to Agrippa, his faithful friend and associate in war. Agrippa proved himself worthy of the trust reposed in him: he began his operations by a victory over Pompey; and, though he was shortly after worsted himself, he soon after gave his adversary a complete and final overthrow. Thus undone, Pompey resolved to fly to Antony, from whom he expected refuge, as he had formerly obliged that triumvir by giving protection to his mother. However, he tried once more, at the head of a small body of men, to make himself independent, and even surprised Antony's officers who had been sent to accept of his submissions. Nevertheless, he was at last abandoned by his soldiers, and delivered up to Titus, Antony's lieutenant, who shortly after caused him to be slain.

240 Sextus Pompeius defeated and taken prisoner.

The death of this general removed one very powerful obstacle to the ambition of Octavianus, and he resolved to take the earliest opportunity to get rid of the rest of his associates. An offence was soon furnished by Lepidus, that served as a sufficient pretext for depriving him of his share in the triumvirate. Being now at the head of 22 legions, with a strong body of cavalry, he idly supposed that his present power was more than an equivalent to the popularity of Octavianus. He therefore resolved upon adding Sicily, where he then was, to his province; pretending a right, as having first invaded it. His colleague sent to expostulate upon these proceedings; but Lepidus fiercely replied, 'that he was determined to have his share in the administration, and would no longer submit to let one alone possess all the authority.' Octavianus was previously informed of the disposition of Lepidus's soldiers; for he had, by his secret intrigues and largesses, entirely attached them to himself. Wherefore, without further delay,

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delay, he with great boldness went alone to the camp of Lepidus, and with no other assistance than his private bounties, and the authority he had gained by his former victories, he resolved to depose his rival. The soldiers thronged round him with the most dutiful alacrity, while Lepidus hastened to prevent their defection. But Octavianus, though he received a wound from one of the centurions, went with great presence of mind to the place where the military ensigns were planted, and, flourishing one of them in the air, all the legionary soldiers ran in crowds and saluted him as their general. Lepidus being thus abandoned by his men, divested himself of all the marks of his authority, which he could no longer keep, and submissively threw himself at the feet of Octavianus. This general spared his life, notwithstanding the remonstrances of his army; but deprived him of all his former authority, and banished him to Circæum.

241 Lepidus defeated and banished.

Octavianus was received upon his return to Rome with universal joy; the senators met him at the gates, and conducted him to the capitol: the people followed, crowned with garlands of flowers: and after having returned thanks to the gods, waited upon him to his palace. There remained now but one obstacle to his ambition, which was Antony, whom he resolved to remove, and for that purpose began to render his character as contemptible as he possibly could at Rome. In fact, Antony's conduct did not a little contribute to promote the endeavours of his ambitious partner in the state. He had marched against the Parthians with a prodigious army; but was forced to return with the loss of the fourth part of his forces, and all his baggage *. This extremely diminished his reputation; but his making a triumphal entry into Alexandria soon after, entirely disgusted the citizens of Rome. However, Antony seemed quite regardless of their resentment: totally disregarding the business of the state, he spent whole days and nights in the company of Cleopatra, who studied every art to increase his passion, and vary his entertainments. Not contented with sharing in her company all the delights which Egypt could afford, Antony was resolved to enlarge his sphere of luxury, by granting her many of those kingdoms which belonged to the Roman empire. He gave her all Phœnicia, Cele-Syria, and Cyprus; with a great part of Cilicia, Arabia, and Judea; gifts which he had no right to bestow, but which he pretended to grant in imitation of Hercules. This complication of vice and folly at length totally exasperated the Romans; and Octavianus, willing to take advantage of their resentment, took care to exaggerate all his defects. At length, when he found the people sufficiently irritated against him, he resolved to send Octavia, who was then at Rome, to Antony, as if with a view of reclaiming her husband; but, in fact, to furnish a sufficient pretext of declaring war against him, as he knew she should be dismissed with contempt.

242 Antony's imprudent conduct.

* See *Parthia*.

Antony was now in the city of Leucopolis, revelling with his insidious paramour, when he heard that Octavia was at Athens, upon her journey to visit him. This was very unwelcome news to him as well as to Cleopatra; who, fearing the charms of her rival, endeavoured to convince Antony of the strength of her passion. He frequently caught her in tears, which she seemed as if willing to hide; and often intreated her to tell him the cause, which she seemed willing to suppress. These artifices, together with the ceaseless flattery and importunity of her creatures, prevailed so much upon Antony's weakness, that he commanded Octavia to return home without seeing her, and attached himself still more closely to Cleopatra than before. His ridiculous passion now began to have no bounds. He resolved to own her for his wife, and entirely to repudiate Octavia. He accordingly assembled the people of Alexandria in the public theatre, where was raised an alcove of silver, under which were placed two thrones of gold, one for himself and the other for Cleopatra. There he seated himself, dressed like Bacchus, while Cleopatra sat beside him clothed in the ornaments and attributes of Isis, the principal deity of the Egyptians. On that occasion he declared her queen of all the countries which he had already bestowed upon her; while he associated Cæsario, her son by Cæsar, as her partner in the government. To the two children which he had by her himself he gave the title of *king of kings*, with very extensive dominions; and, to crown his absurdities, he sent a minute account of his proceedings to the two consuls at Rome. It was now necessary to act up to his imaginary dignity; new luxuries and pageantries were now therefore studied, and new marks of profusion found out: not less than L.60,000 of our money were lavished upon one single entertainment; it is said, upon this occasion, that Cleopatra dissolved a pearl of great value in vinegar, and drank it off. But we are told of one circumstance that might well repress their delights, and teach mankind to relish the beverage of virtue, however simple, above their greatest luxuries. He was suspicious of being poisoned in every meal; he feared Cleopatra, whom he so much loved, and would eat nothing without having it previously tasted by one of his attendants.

243 Divorces Octavia, and marries Cleopatra.

In the mean time Octavianus had now a sufficient pretext for declaring war; and informed the senate of his intentions. However, he deferred the execution of his design for a while, being then employed in quelling an insurrection of the Illyrians. The following year was chiefly taken up in preparations against Antony, who, perceiving his design, remonstrated to the senate, that he had many causes of complaint against his colleague, who had seized upon Sicily without offering him a share; alleging that he had also dispossessed Lepidus, and kept to himself the province he had commanded; and that he had divided all Italy among his own soldiers, leaving nothing to recompense those in Asia. To this complaint Octavianus was contented to make a sarcastic answer; implying, that it was absurd to complain of his distribution of a few trifling districts in Italy, when Antony having conquered Parthia, he might now reward his soldiers with cities and provinces. The sarcasm upon Antony's misfortunes in Parthia so provoked him, that he ordered Canidius, who commanded his army, to march without intermission into Europe; while he and Cleopatra followed to Samos, in order to prepare for carrying on the war with vigour. When arrived there, it was ridiculous enough to behold the odd mixture of preparations for pleasure and for war. On one side all the kings and princes from Europe to the Euxine sea had orders to send him thither supplies both of men, provisions and arms; on the other side, all the comedians, dancers, buffoons, and musicians of Greece,

244 Octavianus resolves to make war upon him.

Greece, were ordered to attend him. Thus, frequently, when a ship was thought to arrive laden with soldiers arms, and ammunition, it was found only filled with players and theatrical machinery. When news was expected of the approach of an army, messengers only arrived with tidings of a fresh quantity of venison. The kings who attended him endeavoured to gain his favour more by their entertainments than their warlike preparations; the provinces strove rather to please him by sacrificing to his divinity, than by their alacrity in his defence; so that some were heard to say, "What rejoicings would not this man make for a victory, when he thus triumphs at the eve of a dangerous war!" In short, his best friends now began to forsake his interests.

His delay at Samos, and afterwards at Athens, where he carried Cleopatra to receive new honours, was extremely favourable to the arms of Octavianus. This general was at first scarcely in a disposition to oppose him had he gone into Italy: but he soon found time to put himself in a condition for carrying on the war, and shortly after declared it against him in form. All Antony's followers were invited over to join him, with great promises of rewards: but they were not declared enemies, partly to prevent their growing desperate, and partly to give a show of moderation to his own party. At length both found themselves in readiness to begin the war, and their armies were answerable to the empire they contended for. The one was followed by all the forces of the east; the other drew all the strength of the west to support his pretensions. Antony's force composed a body of 100,000 foot and 12,000 horse; while his fleet amounted to 500 ships of war. The army of Octavianus mustered but 80,000 foot, but equalled his adversary's in the number of cavalry; his fleet was but half as numerous as Antony's; however, his ships were better built, and manned with better soldiers.

245 Antony defeated at Actium.

The great decisive engagement, which was a naval one, was fought near Actium, a city of Epirus, at the entrance of the gulf of Ambracia. Antony ranged his ships before the mouth of the gulf; and Octavianus drew up his fleet in opposition. Neither general assumed any fixed station to command in; but went about from ship to ship wherever his presence was necessary. In the mean time, the two land armies, on opposite sides of the gulf, were drawn up, only as spectators of the engagement; and enconraged the fleets by their shouts to engage. The battle began on both sides with great ardour, and after a manner not practised upon former occasions. The prows of their vessels were armed with brazen points; and with these they drove furiously against each other. In this conflict the ships of Antony came with greater force, but those of Octavianus avoided the shock with greater dexterity. On Antony's side, the sterns of the ships were raised in form of a tower; from whence they threw arrows from machines for that purpose. Those of Octavianus made use of long poles hooked with iron, and fire-pots. They fought in this manner for some time with equal animosity; nor was there any advantage on either side, except a small appearance of disorder in the centre of Antony's fleet. But all of a sudden Cleopatra determined the fortune of the day. She was seen flying from the engagement attended by 60 sail; struck, perhaps, with the terrors natural to her sex: but what increased the general amazement was, to behold Antony himself following soon after, and leaving his fleet at the mercy of the conquerors. The engagement, notwithstanding, continued with great obstinacy till five in the evening; when Antony's forces, partly constrained by the conduct of Agrippa, and partly persuaded by the promises of Octavianus, submitted to the conqueror. The land forces soon after followed the example of the navy; and all yielded to the conqueror without striking a blow the fourth day after the battle.

When Cleopatra fled, Antony pursued her in a five-oared galley; and coming along-side of her ship entered, without seeing or being seen by her. She was in the stern, and he went to the prow, where he remained for some time silent, holding his head between his hands. In this manner he continued three whole days; during which, either through indignation or shame, he neither saw nor spoke to Cleopatra. At last, when they were arrived at the promontory of Tenarus, the queen's female attendants reconciled them, and every thing went on as before. Still, however, he had the consolation to suppose his army continued faithful to him: and accordingly dispatched orders to his lieutenant Canidius to conduct it into Asia. However, he was soon undeceived when he arrived in Africa, when he was informed of their submission to his rival. This account so transported him with rage, that he was hardly prevented from killing himself: but at length, at the entreaty of his friends, he returned to Alexandria, in a very different situation from that in which he had left it some time before. Cleopatra, however, seemed to retain that fortitude in her misfortunes which had utterly abandoned her admirer. Having amassed considerable riches by means of confiscation and other acts of violence, she formed a very singular and unheard of project; this was to convey her whole fleet over the isthmus of Suez into the Red sea, and thereby save herself in another region beyond the reach of Rome, with all her treasures. Some of her vessels were actually transported thither, pursuant to her orders; but the Arabians having burnt them, and Antony dissuading her from the design, she abandoned it for the more improbable scheme of defending Egypt against the conqueror — She omitted nothing in her power to put his advice in practice, and made all kinds of preparations for war; at least hoping thereby to obtain better terms from Octavianus. In fact, she had always loved Antony's fortunes rather than his person; and if she could have fallen upon a method of saving herself, though even at his expence, there is no doubt but she would have embraced it with gladness. She even still had some hopes from the power of her charms, though she was arrived almost at the age of 40; and was desirous of trying upon Octavianus those arts which had been so successful with the greatest men of Rome. Thus, in three embassies which were sent one after another from Antony to his rival in Asia, the queen had always her secret agents, charged with particular proposals in her name. Antony desired no more than that his life might be spared, and to have the liberty of passing the remainder of his days in obscurity. To these proposals Octavianus made no reply. Cleopatra sent him also public proposals in favour of her children; but at the same time privately resigned him her crown, with all the ensigns of royalty.

246 He resolves to defend Egypt against the conqueror.

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To the queen's public proposal no answer was given; to her private offer he replied, by giving her assurances of his favour in case she sent away Antony or put him to death. These negociations were not so private but they came to the knowledge of Antony, whose jealousy and rage were now heightened by every concurrence. He built a small solitary house upon a mole in the sea; and there he passed his time, shunning all commerce with mankind, and professing to imitate Timon the man-hater. However, his furious jealousy drove him even from this retreat into society; for hearing that Cleopatra had many secret conferences with one Thyrsus, an emissary from Octavianus, he seized upon him, and having ordered him to be cruelly scourged, he sent him back to his patron. At the same time he sent letters by him, importing, that he had chastised Thyrsus for insulting a man in his misfortunes; but withal he gave his rival permission to avenge himself, by scourging Hipparchus, Antony's freedman, in the same manner. The revenge in this case, would have been highly pleasing to Antony, as Hipparchus had left him to join the fortunes of his more successful rival.

Meanwhile, the operations of the war were carried vigorously forward, and Egypt was once more the theatre of the contending armies of Rome. Gallus, the lieutenant of Octavianus, took Paretonium, which opened the whole country to his incursions. On the other side, Antony, who had still considerable forces by sea and land, wanted to take that important place from the enemy. He therefore marched towards it, flattering himself, that as soon as he should show himself to the legions which he had once commanded, their affection for their ancient general would revive. He approached therefore, and exhorted them to remember their former vows of fidelity. Gallus, however, ordered all the trumpets to sound, in order to hinder Antony from being heard, so that he was obliged to retire.

247 Pelusium given up to Octavianus.

Octavianus himself was in the mean time advancing with another army before Pelusium, which, by its strong situation, might have retarded his progress for some time. But the governor of the city, either wanting courage to defend it, or previously instructed by Cleopatra to give it up, permitted him to take possession of the place; so that Octavianus had now no obstacle in his way to Alexandria, whither he marched with all expedition. Antony, upon his arrival, sallied out to oppose him, fighting with great desperation, and putting the enemy's cavalry to flight. This slight advantage once more revived his declining hopes; and being naturally vain, he re-entered Alexandria in triumph. Then going, all armed as he was, to the palace, he embraced Cleopatra, and presented her a soldier who had distinguished himself in the late engagement. The queen rewarded him very magnificently; presenting him with an head-piece and breast-plate of gold. With these, however, the soldier went off the next night to the other army. Antony could not bear this defection without fresh indignation; he resolved, therefore, to make a bold expiring effort by sea and land, but previously offered to fight his adversary in single combat. Octavianus too well knew the inequality of their situations to comply with this forlorn offer; he only, therefore, coolly replied, that Antony had ways enough to die besides single combat.

The evening before the day appointed for the last desperate attempt, he ordered a grand entertainment to be prepared. At day-break he posted the few troops he had remaining upon a rising ground near the city; from whence he sent orders to his galleys to engage the enemy. There he waited to be a spectator of the combat; and, at first, he had the satisfaction to see them advance in good order; but his approbation was soon turned into rage, when he saw his ships only saluting those of Octavianus, and both fleets uniting together, and sailing back into the harbour. At the very same time his cavalry deserted him. He tried, however, to lead on his infantry; which were easily vanquished, and he himself compelled to return into the town. His anger was now ungovernable; he could not help crying out aloud as he passed, that he was betrayed by Cleopatra, and delivered by her to those who, for her sake alone, were his enemies. In these suspicions he was not deceived; for it was by secret orders from the queen that the fleet had passed over to the enemy.

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248 Antony deserted by his fleet.

Cleopatra had for a long while, dreaded the effects of Antony's jealousy; and had, some time before, prepared a method of obviating any sudden sallies it might produce. Near the temple of Isis she had erected a building, which was seemingly designed for a sepulchre. Hither she removed all her treasure and most valuable effects, covering them over with torches, faggots, and other combustible matter. This sepulchre she designed to answer a double purpose, as well to screen her from the sudden resentments of Antony, as to make Octavianus believe that she would burn all her treasures in case he refused her proper terms of capitulation. Here, therefore, she retired from Antony's present fury; shutting the gates, which were fortified with bolts and bars of iron: but in the mean time gave orders that a report should be spread of her death.—This news, which soon reached Antony, recalled all his former love and tenderness. He now lamented her death with the same violence he had but a few minutes before seemed to desire it; and called one of his freedmen, named *Eros*, whom he had by oath engaged to kill him whenever fortune should drive him to this last resource. Eros being now commanded to perform his promise, this faithful follower drew the sword, as if going to execute his orders; but turning his face, plunged it into his own bosom, and died at his master's feet. Antony for a while hung over his faithful servant, and, commending his fidelity, took up the sword, with which stabbing himself in the belly, he fell backward upon a little couch. Though the wound was mortal, yet the blood stopping he recovered his spirits, and earnestly conjured those who were come into the room to put an end to his life; but they all fled, being seized with fright and horror. He therefore continued in agonies for some time; till he was informed by one of the queen's secretaries that his mistress was still alive. He then earnestly desired to be carried to the place where she was. They accordingly brought him to the gate of the sepulchre; but Cleopatra, who would not permit it to be opened, appeared at the window, and threw down cords in order to pull him up. In this manner, assisted by her two female attendants, she raised him all bloody from the ground; and while yet suspended in the air, he continued stretching out his hands to encourage her. Cleopatra and her maids had only just strength sufficient to raise him; and at last, with much straining, they effected

249 Stabs himself with his sword.

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effected their purpose, and carried him to a couch, on which they gently laid him. Here she gave way to her sorrow, tearing her clothes, beating her breast, and kissing the wound of which he was dying. She called upon him as her lord, her husband, her emperor, and seemed to have forgot her own distresses in the greatness of his sufferings. Antony entreated her to moderate the transports of her grief, and asked for some wine. After he had drank, he entreated Cleopatra to endeavour to preserve her life, if she could do it with honour; and recommended Proculus, a friend of Octavianus, as one she might rely on to be her intercessor. Just as he had done speaking, he expired: and Proculus made his appearance by command of Octavianus, who had been informed of Antony's desperate conduct. He was sent to try all means of getting Cleopatra into his power; his master having a double motive for his solicitude on this occasion; one, to prevent her destroying the treasures she had taken with her into the tomb; the other, to preserve her person as an ornament to grace his triumph. Cleopatra, however, was upon her guard, and would not confer with Proculus, except through the gate, which was well secured. In the mean time, while he designedly drew out the conference to some length, and had given Gallus, one of his fellow-soldiers, directions to carry on the conversation in his absence, he entered with two more by the window at which Antony had been drawn up. As soon as he was entered, he ran down to the gate; and one of the women crying out, that they were taken alive, Cleopatra, perceiving what had happened, drew a poniard, and attempted to stab herself; but Proculus prevented the blow, and gently remonstrated that she was cruel in refusing so good a prince as his master was the pleasure of displaying his clemency. He then forced the poniard out of her hand, and examined her clothes to be certain she had no poison about her. Thus leaving every thing secured, he went to acquaint his master with his proceedings.

250 He dies.

251 Cleopatra taken.

Octavianus was extremely pleased at finding her in his power: he sent Epaphroditus to bring her to his palace, and to watch her with the utmost circumspection. He was likewise ordered to use her, in every respect, with that deference and submission which were due to her rank, and to do every thing in his power to render her captivity agreeable. She was permitted to have the honour of granting Antony the rites of burial, and furnished with every thing she desired, that was becoming his dignity to receive, or her love to offer. Yet still she languished under her new confinement. Her excessive sorrow, her many losses, and the blows she had given her bosom, produced a fever, which she seemed willing to increase. She resolved to abstain from taking any nourishment, under the pretence of a regimen necessary for her disorder; but Octavianus being made acquainted with the real motive by her physician, began to threaten her with regard to her children, in case she persisted. This was the only punishment that could now affect her; she allowed herself to be treated as they thought proper, and received whatever was prescribed for her recovery.

In the mean time Octavianus made his entry into Alexandria, taking care to mitigate the fears of the inhabitants, by conversing familiarly as he went along with Areus a philosopher, and a native of the place. The citizens, however, trembled at his approach; and when he placed himself upon the tribunal, they prostrated themselves, with their faces to the ground, before him, like criminals who waited the sentence of their execution. Octavianus presently ordered them to rise; telling them, that three motives induced him to pardon them: His respect for Alexander, who was the founder of their city; his admiration of its beauty; and his friendship for Areus, their fellow-citizen. Two only of particular note were put to death upon this occasion; Antony's eldest son Antyllus, and Cæsario, the son of Julius Cæsar; both betrayed into his hands by their respective tutors, who themselves suffered for their perfidy shortly after. As for the rest of Cleopatra's children, he treated them with great gentleness, leaving them to the care of those who were entrusted with their education, who had orders to provide them with every thing suitable to their birth. When she was recovered from her late indisposition, he came to visit her in person.—Cleopatra had been preparing for this interview, and made use of every method she could think of to propitiate the conqueror, and to gain his affection; but in vain. However, at his departure, Octavianus imagined that he had reconciled her to life, and to the indignity of being shewn in the intended triumph, which he was preparing for on his return to Rome: but in this he was deceived. Cleopatra, all this time, had kept a correspondence with Dolabella, a young Roman of high birth, in the camp of Octavianus; who, perhaps, from compassion, or stronger motives, was interested in the misfortunes of that princess. From him she learnt the intentions of Octavianus, and that he was determined to send her off in three days, together with her children, to Rome. She now therefore determined upon dying; but previously intreated permission to pay her oblations at Antony's tomb. This request being granted her, she was carried with her two female attendants to the stately monument where he was laid. There she threw herself upon his coffin, bewailed her captivity, and renewed her protestations not to survive him. She then crowned the tomb with garlands of flowers; and having kissed the coffin a thousand times, she returned home to execute her fatal resolution. Having bathed, and ordered a sumptuous banquet, she attired herself in the most splendid manner. She then feasted as usual; and soon after ordered all but her two attendants, Charmion and Iras, to leave the room. Then, having previously ordered an asp to be secretly conveyed to her in a basket of fruit, she sent a letter to Octavianus, informing him of her fatal purpose, and desiring to be buried in the same tomb with Antony. Octavianus, upon receiving this letter, instantly dispatched messengers to prevent her, but they arrived too late. Upon entering the chamber, they beheld Cleopatra lying dead upon a gilded couch, arrayed in her royal robes. Near her, Iras, one of her faithful attendant, was stretched lifeless at the feet of her mistress; and Charmion herself, almost expiring, was settling the diadem upon Cleopatra's head. She died at the age of thirty-nine, after having reigned twenty-two years. Her death put an end to the monarchy in Egypt, which had flourished there from time immemorial.

252 Her death.

Octavianus seemed much troubled at Cleopatra's death, as it deprived him of a principal ornament in his intended

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intended triumph. However, the manner of it a good deal exalted her character among the Romans, with whom suicide was considered as a virtue. Her dying request was complied with, her body being laid by Antony's, and a magnificent funeral prepared for her and her two faithful attendants.

After having settled the affairs of Egypt, he left Alexandria in the beginning of September, in the year of Rome 720, with a design to return through Syria, Asia Minor, and Greece, to Italy. On his arrival at Antioch, he found there Tiridates, who had been raised to the throne of Parthia in opposition to Phrahates, and likewise ambassadors from Phrahates, who were all come on the same errand; to wit, to solicit the assistance of the Romans against each other. Octavianus gave a friendly answer both to Tiridates and the ambassadors of Phrahates, without intending to help either; but rather with a design to animate the one against the other, and by that means to weaken both, so far as to render the Parthian name no longer formidable to Rome. After this, having appointed Messala Corvinus governor of Syria, he marched into the province of Asia, properly so called, and there took up his winter-quarters. He spent the whole winter in settling the affairs of the several provinces of Asia Minor and the adjacent islands; and early in the spring passed into Greece, whence he set out for Rome, which he entered in the month Sextilis, afterwards called *August*, in three triumphs, which were celebrated for three days together.

253 Octavianus has thoughts of resigning his power.

And now Octavianus was at the height of his wishes, sole sovereign, sole master, of the whole Roman empire. But, on the other hand, the many dangers which attend an usurped power, appearing to him in a stronger light than ever, filled his mind with a thousand perplexing thoughts. The natural aversion of the Romans to a kingly government their love of liberty, and the ides of March, when his father Julius was murdered in full senate by those very men whom he thought the most devoted to his person, made him fear there might arise another Brutus, who, to restore liberty to his country, might assassinate him on his very throne. This he knew had happened to Julius Cæsar; whereas Sylla, after having laid down the authority he had usurped, died peaceably in his bed in the midst of his enemies. The passion of fear outweighed in his soul the charms of a diadem, and inclined him to follow the example of Sylla. He was indeed very unwilling to part with his authority; but fear began to get the better of his ambition. However, before he came to any resolution, he thought it advisable to consult his two most intimate and trusty friends, Agrippa and Mæcenas; the former no less famous for his probity than his valour; and the latter a man of great penetration, and generally esteemed the most refined politician of his age. Agrippa enlarged on the many and almost inevitable dangers which attend monarchy insupportable to a free people, and to men educated in a commonwealth. He did not forget the examples of Sylla and Cæsar; and closed his speech with exhorting Octavianus to convince the world, by restoring liberty to his country, that the only motive for his taking up arms was to revenge his father's death.

Mæcenas, on the other hand, remonstrated to him, that he had done too much to go back; that, after so much bloodshed, there could be no safety for him but on the throne; that, if he divested himself of the sovereign power, he would be immediately prosecuted by the children and friends of the many illustrious persons whom the misfortunes of the times had forced him to sacrifice to his safety; that it was absolutely necessary for the welfare and tranquillity of the republic, that the sovereign power should be lodged in one person, not divided among many, &c. Octavianus thanked them both for their friendly advice, but showed himself inclined to follow the opinion of Mæcenas; whereupon that able minister gave him many wise instructions and rules of government, which are related at length by Dio Cassius, and will ever be looked upon as a masterpiece in politics. Among other things he told him, That he could not fail of being successful in all his undertakings, happy in his lifetime, and famous in history after his death, if he never deviated from this rule; to wit, To govern others as he would wish to be governed himself, had he been born to obey and not to command. He added, That if, in taking upon him the sovereign power, he dreaded the name of king, a name so odious in a commonwealth, he might content himself with the title of *Cæsar* or *Imperator*, and under that name, which was well known to the Romans, enjoy all the authority of a king.

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254 But is dissuaded from it by Mæcenas.

This advice Octavianus followed, and from that time laid aside all thoughts of abdicating the sovereign power; but, to deceive the people into a belief that they still enjoyed their ancient government, he continued the old magistrates, with the same name, pomp, and ornaments, but with just as much power as he thought fit to leave them. They were to have no military power, but only their old jurisdiction of deciding finally all causes, except such as were capital; and though some of these last were left to the governor of Rome, yet the chief he reserved for himself. He paid great court to the people: the very name that covered his usurpation was a compliment to them; for he affected to call it the power of the tribuneship, though he acted as absolutely by it as if he had called it the dictatorial power. He likewise won the hearts of the populace by cheapness of provisions and plentiful markets; he frequently entertained them with shows and sports; and by these means kept them in good humour, and made them forget usurpation, slavery, and every public evil; people in ease and plenty being under no temptation of inquiring into the title of their prince, or resenting acts of power which they do not immediately feel.

As for the senate, he filled it with his own creatures, raising the number of the conscript fathers to 1000. He supplied several poor senators with money out of the treasury to discharge the public offices, and on all occasions affected a high regard for that venerable body; but the same time divested them of all power, and reduced them to mere cyphers. To prevent them from raising new disturbances in the distant provinces he issued an edict, forbidding any senator to travel out of Italy without leave, except such as had lands in Sicily, or Narbonne Gaul, which at that time comprehended Languedoc, Provence, and Dauphiny. To these provinces, which were near Italy, and in a perfect state of tranquillity, they had full liberty to retire when they pleased, and live there upon their estates. Before he ended his sixth consulship, he took a census of the people

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ple, which was 41 years after the last; and in this the number of men fit to bear arms amounted to 463,000, the greatest that had ever been found before. He likewise celebrated the games which had been decreed by the senate for his victory at Actium; and it was ordered, that they should be celebrated every fifth year, four colleges of priests being appointed to take care of them: to wit, the pontifices, the augurs, the septemvirs, and quindecimvirs. The more to gain the affections of the people, he annulled, by one edict, the many severe and unjust laws which had been enacted during the triumvirate. He raised many public buildings, repaired the old ones, and added many stately ornaments to the city, which at this time was, if we may give credit to some ancient writers, about 50 miles in compass, and contained near four millions of souls, reckoning men, women, children, and slaves. He attended business, reformed abuses, showed great regard for the Roman name, procured public abundance, pleasure, and jollity, often appearing in person at the public diversions, and in all things studying to render himself dear to the populace.

And now Octavianus, entering upon his seventh consulship with M. Agrippa, the third time consul, and finding all things ripe for his design, the people being highly pleased with his mild government, and the senate filled with his creatures, whose fortunes depended upon his holding the power he had usurped, went by the advice of Agrippa and Mæcenas to the senate-house; and there, in a studied speech, offered to resign his authority, and put all again into the hands of the people upon the old foundation of the commonwealth; being well apprised, that the greater part of the conscript fathers, whose interests were interwoven with his, would unanimously press him to the contrary: Which happened accordingly; for they not only interrupted him while he was speaking, but after he had done, unanimously besought him to take upon himself alone the whole government of the Roman empire. He, with a seeming reluctance, yielded at last to their request, as if he had been compelled to accept of the sovereignty. By this artifice he compassed his design, which was, to get the power and authority, which he had usurped, confirmed to him by the senate and people for the space of 10 years: for he would not accept of it for a longer term, pretending he should in that time be able to settle all things in such peace and order that there would be no further need of his authority; but that he might then ease himself of the burden, and put the government again into the hands of the senate and people. This method he took to render the yoke less heavy; but with a design to renew his lease, if we may be allowed the expression, as soon as the ten years were expired; which he did accordingly from ten years to ten years as long as he lived, all the while governing the whole Roman empire with an absolute and uncontrouled power. With this new authority the senate resolved to distinguish him with a new name. Some of the conscript fathers proposed the name of *Romulus*, thereby to import that he was another founder of Rome; others offered other titles; but the venerable name of *Augustus*, proposed by Manutius Plancus, seemed preferable to all the rest, as it expressed more dignity and reverence than authority, the most sacred things, such as temples, and places consecrated by augurs, being termed by the Romans *Augusta*. Octavianus himself was inclined to assume the name of *Romulus*; but, fearing he should be suspected of affecting the kingdom, he declined it, and took that of *Augustus*, by which we shall henceforth distinguish him.

255 The senate intreat him to accept the sovereignty.

256 He takes the title of Augustus.

Though the whole power of the senate and people was now vested in Augustus, yet that he might seem to share it with the conscript fathers, he refused to govern all the provinces; assigning to the senate such as were quiet and peaceable; and keeping to himself those which, bordering upon barbarous nations, were most exposed to troubles and wars, saying, He desired the fathers might enjoy their power with ease and safety, while he underwent all the dangers and labours: but, by this politic conduct, he secured all the military power to himself: the troops lying in the provinces he had chosen; and the others which were governed by the senate, being quite destitute of forces. The latter were called *senatorial*, and the former *imperial*, provinces. Over the provinces of both sorts were set men of distinction, to wit, such as had been consuls or prætors, with the titles of *proconsul* and *proprætor*: but the government of Egypt was committed to a private knight, Augustus fearing lest a person of rank, depending upon the wealth and situation of that country, might raise new disturbances in the empire. All these governors held their employment only for a year, and were upon the arrival of their successors to depart their provinces immediately, and not fail to be at Rome within three months at the farthest. This division of the provinces was made, according to Ovid, on the ides of January; whereas he was vested by the senate and people with the sovereign power on the seventh of the ides of the same month, as is manifest from the Narbonne marbles; and from that time many writers date the years of his empire. Thus ended the greatest commonwealth, and at the same time began the greatest monarchy, that had ever been known; a monarchy which infinitely excelled in power, riches, extent, and continuance, all the empires which had preceded it.

257 Extent, &c. of the Roman empire.

It comprehended the greatest and by far the best part of Europe, Asia, and Africa, being near 4000 miles in length, and about half as much in breadth. As to the yearly revenues of the empire, they have by a moderate computation been reckoned to amount to forty millions of our money. But the Romans themselves now ran headlong into all manner of luxury and effeminacy. The people were become a mere mob; those who were wont to direct mighty wars, to raise and depose great kings, to bestow or take away potent empires, were so sunk and debauched, that, if they had but bread and shows, their ambition went no higher. The nobility were indeed more polite than in former ages; but at the same time idle, venal, vicious, insensible of private virtue, utter strangers to public glory or disgrace, void of zeal for the welfare of their country, and solely intent on gaining the favour of the emperor, as knowing that certain wealth and preferment were the rewards of ready submission, acquiescence, and flattery. No wonder, therefore, that they lost their liberty, without being ever again able to retrieve it.

258 Military establishments of Augustus.

Augustus, now absolute master of the Roman empire, took all methods to ingratiate himself with his soldiers, by whose means he had attained such a height of power. With this view, he dispersed them through different

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different parts of Italy in 32 colonies, that he might the more easily reassemble them on proper occasions. He kept 23 legions constantly on foot, 17 of which were in Europe; viz. eight on the Rhine, four on the Danube, three in Spain, and two in Dalmatia. The other eight were sent into Asia and Africa; four of them being quartered in the neighbourhood of the Euphrates, two in Egypt, and two in Africa Propria, that is, the ancient dominions of Carthage. All these forces, amounting to 170,650 men, were constantly kept on foot by the Roman emperors for several ages. In the neighbourhood of Rome were always quartered 12 cohorts, that is, about 10,000 men; nine of which were called *prætorian cohorts*; the other three, *city cohorts*. These were established as a guard to the emperor, and to maintain peace and tranquillity in the city, but had often a great share in the disturbances which took place throughout the empire. Besides these, Augustus constantly kept at sea two powerful navies; the one riding at anchor near Ravenna in the Adriatic sea, to command Dalmatia, Greece, Cyprus, and the rest of the eastern provinces; the other at Misenum in the Mediterranean, to keep in awe the western parts of the empire. They were likewise to keep the seas clear of pirates, to convoy the vessels which brought to Rome the annual tributes from the provinces beyond sea, and to transport corn and other provisions necessary for the relief and subsistence of the city. As to the civil government, Augustus enacted several new laws, and reformed some of the old ones: however, he affected to do nothing without the advice of the senate: who were so well pleased with the complaisance showed them on all occasions, that to the rest of his titles they added that of *Pater Patriæ*, or "Father of his Country."

And now Augustus having settled all things with regard to the civil and military establishments of the empire, turned his arms against the Spanish nations called the *Cantabrians* and *Asturians*, who had never been fully subdued. The war, however, terminated as usual, in favour of the Romans; and these brave nations were forced to receive the yoke, though not without the most violent resistance on their part, and the utmost difficulty on that of the Romans (see ASTURIA). By this and his other conquests the name of Augustus became so celebrated, that his friendship was courted by the most distant monarchs. Phrahates king of Parthia consented to a treaty with him upon his own terms, and gave him four of his own sons with their wives and children as hostages for the performance of the articles; and as a further instance of his respect, he delivered up the Roman eagles and other ensigns which had been taken from Crassus at the battle of Carrhæ. He received also an embassy from the king of India, with a letter written in the Greek tongue, in which the Indian monarch informed him, that "though he reigned over 600 kings, he had so great a value for the friendship of Augustus, that he had sent this embassy on so long a journey on purpose to desire it of him; that he was ready to meet him at whatsoever place he pleased to appoint; and that, upon the first notice, he was ready to assist him in whatever was right" This letter he subscribed by the name of *Porus king of India*. Of the ambassadors who set out from India, three only reached the presence of Augustus, who was at that time in the island of Samos, the others dying by the way. Of the three survivors one was named *Zarmar*, a gymnosophist, who followed the emperor to Athens, and there burnt himself in his presence; it being customary for the gymnosophists to put an end to their lives in this manner when they thought they had lived long enough, or apprehended some misfortune. Soon after this the Roman dominions were extended southward over the Garamantes, a people whose country reached as far as the river Niger. All this time the emperor continued to make new regulations for the good of the state; and among other things caused the Sibylline oracles to be reviewed Many of these he rejected; but such as were reckoned authentic, he caused to be copied by the pontifices themselves, and lodged them in golden cabinets, which he placed in the temple of Apollo, built by him in his palace.

259 His friendship courted by the kings of Parthia and India.

The Roman empire had now extended itself so far, that it seemed to have arrived at the limits prescribed to it by nature; and as soon as this was the case, it began to be attacked by those nations which in process of time were to overthrow it. The Germans, by which name the Romans confounded a great number of nations dwelling in the northern parts of Europe, began to make incursions into Gaul. Their first attempt happened in the year 17 B. C. when they at first gained an inconsiderable advantage, but were soon driven back with great loss. Soon after this the Rhæti, who seem to have inhabited the country bordering on the lake of Constance, invaded Italy, where they committed dreadful devastations, putting all the males to the sword without distinction of rank or age; nay, we are told, that, when women with child happened to fall into their hands, they consulted their augurs whether the child was male or female; and if they pronounced it a male, the mother was immediately massacred. Against these barbarians Augustus sent Drusus the second son of the empress Livia; who, though very young, found means to gain a complete victory with very little loss on his part. Those who escaped took the road to Gaul, being joined by the Vindelici, another nation in the neighbourhood; but Tiberius, the elder brother of Drusus, marched against them, and overthrew them so completely, that the Rhæti, Vindelici, and Norici, three of the most barbarous nations in those parts, were fain to submit to the pleasure of the emperor. To keep their country in awe, Tiberius planted two colonies in Vindelicia, opening a road from thence into Noricum and Rhætia. One of the cities which he built for the defence of his colonies was called *Drysomagus*; the other, *Augusta Vindelicorum*; both of which are now known by the names of *Nimwghen* and *Augsburg*.

260 The empire invaded by the northern barbarians.

Augustus, who had long since obtained all the temporal honours which could well be conferred upon him, now began to assume those of the spiritual kind also; being in the year 13 B. C. created Pontifex Maximus: an office which he continued to hold till his death; as did also his successors till the time of Theodosius. By virtue of this office he corrected a very gross mistake in the Roman kalendar; for the pontifices, having, for the space of 36 years, that is, ever since the reformation by Julius Cæsar, made every third year a leap year instead of every fourth twelve days had been inserted instead of nine, so that the Roman year consisted of three days more than it ought to have done. These three superfluous

261 Augustus created pontifex maximus.

Rome.

superfluous days having been thrown out, the form of the year has ever since been regularly observed, and is still known by the name of the *old style* in use among us. On this occasion he gave his own name to the month of August, as Julius Cæsar had formerly done to the month of July.

262 Tiberius succeeds Agrippa.

In the year 11 B. C. Agrippa died, and was succeeded in his high employment of governor of Rome by Tiberius, but, before investing him with this ample power, the emperor caused him to divorce his wife Agrippina (who had already brought him a son, and was then big with child), in order to marry Julia the widow of Agrippa and daughter of the emperor. Julia was a princess of an infamous character, as was known to almost every body excepting Augustus himself; however, Tiberius made no hesitation, through fear of disobliging the emperor.

The emperor now sent his two sons Tiberius and Drusus against the northern nations. Tiberius reduced the Pannonians, who had attempted to shake off the yoke after the death of Agrippa. Drusus performed great exploits in Germany; but while he was considering whether he should penetrate further into these northern countries, he was seized with a violent fever, which carried him off in a few days. He was succeeded in his command by Tiberius, who is reported to have done great things, but certainly made no permanent conquests in Germany. However, he was honoured with a triumph, and had the tribunitial power for five years conferred upon him; which was no sooner done, than, to the great surprise of Augustus and the whole city, he desired leave to quit Rome and retire to Rhodes. Various reasons have been assigned for this extraordinary resolution: some are of opinion that it was in order to avoid being an eye-witness of the debaucheries of his wife Julia, who set no bounds to her lewdness; though others imagine that he was offended at the honours which Augustus had conferred on his grandchildren, especially at his styling them *princes of the Roman youth;* which left him no hopes of enjoying the sovereign power. However, Augustus positively refused to comply with his request, and his mother Livia used her utmost endeavours to dissuade him from his resolution: but Tiberius continued obstinate; and, finding all other means ineffectual, at last shut himself up in his house, where he abstained four whole days from nourishment. Augustus, perceiving that he could not get the better of his obstinate and inflexible temper, at last complied with his request. Tiberius soon grew weary of his retirement, and, giving out that he had left Rome only to avoid giving umbrage to the emperor's two grand-children, desired leave to return; but Augustus was so much displeased with his having obstinately insisted on leaving Rome, that he obliged him to remain at Rhodes for seven years longer. His mother, with much ado got him declared the emperor's lieutenant in those parts; but Tiberius, dreading the resentment of his father-in-law, continued to act as a private person during the whole time of his stay there.

263 Desires leave to retire to Rhodes.

264 Is confined there by Augustus for seven years.

A profound peace now reigned throughout the whole empire: and in consequence of this the temple of Janus was shut, which had never before happened since the time of Numa Pompilius. During this pacific interval, the Saviour of mankind was born in Judæa, as is recorded in the sacred history, 748 years after the foundation of Rome by Romulus. Three years after, Tiberius returned to the city, by permission of Augustus, who yet would not allow him to bear any public office; but in a short time, Lucius Cæsar, one of the emperor's grandchildren, died, not without suspicions of his being poisoned by Livia. Tiberius showed such great concern for his death, that the affection of Augustus for him returned; and it is said that he would at that time have adopted Tiberius, had it not been for giving umbrage to his other grandson Caius Cæsar. This obstacle, however, was soon after removed; Caius being taken off also, not without great suspicions of Livia, as well as in the former case. Augustus was exceedingly concerned at his death, and immediately adopted Tiberius as his son; but adopted also Agrippa Posthumius, the third son of the famous Agrippa; and obliged Tiberius to adopt Germanicus the son of his brother Drusus, though he had a son of his own named *Drusus;* which was a great mortification to him. As to Agrippa, however, who might have been an occasion of jealousy, Tiberius was soon freed from him, by his disgrace and banishment, which very soon took place, but on what account is not known.

Rome. 765 Birth of Christ.

266 Augustus adopts Tiberius as his son.

The northern nations now began to turn formidable: and though it is pretended that Tiberius was always successful against them, yet about this time they gave the Romans a most terrible overthrow: three legions and six cohorts, under Quintilius Varus, being almost entirely cut in pieces. Augustus set no bounds to his grief on this fatal occasion. For some months he let his hair and beard grow, frequently tearing his garments, knocking his head against the wall, and crying out like a distracted person, "Restore the legions, Varus!" Tiberius, however, was soon after sent into Germany; and for his exploits there he was honoured with a triumph. Augustus now took him for his colleague in the sovereignty; after which he sent Germanicus against the northern barbarians, and Tiberius into Illyricum. This was the last of his public acts; for having accompanied Tiberius for part of his journey, he died at Nola in Campania, in the 76th year of his age, and 56th of his reign. Livia was suspected of having hastened his death by giving him poisoned figs. Her reason for this was, that she feared a reconciliation between him and his grandson Agrippa, whom he had banished, as we have already related. Some months before, the emperor had paid a visit to Agrippa, unknown to Livia, Tiberius, or any other person, excepting one Fabius Maximus. This man, on his return home, discovered the secret to his wife, and she to the empress. Augustus then perceiving that Fabius had betrayed him, was so provoked, that he banished him from his presence for ever; upon which the unfortunate Fabius, unable to survive his disgrace, laid violent hands on himself.

267 Death of Augustus.

Tiberius, who succeeded to the empire, resolved to secure himself on the throne by the murder of Agrippa; whom accordingly he caused to be put to death by a military tribune. Though this might have been a sufficient evidence of what the Romans had to expect, the death of Augustus was no sooner known, than the consuls, senators, and knights, to use the expression of Tacitus, ran headlong into slavery. The two consuls first

Rome.

268 Dissimulation of Tiberius.

first took an oath of fidelity to the emperor, and then administered it to the senate, the people, and the soldiery. Tiberius behaved in a dark mysterious manner, taking care to rule with an absolute sway, but at the same time seeming to hesitate whether he should accept the sovereign power or not; insomuch that one of the senators took the liberty to tell him, that other men were slow in performing what they had promised, but he was slow in promising what he had already performed. At last, however, his modesty was overcome, and he declared his acceptance of the sovereignty in the following words: "I accept the empire, and will hold it, till such time as you, conscript fathers, in your great prudence, shall think proper to give repose to my old age."

269 Revolt of the Pannonian and German legions.

Tiberius had scarcely taken possession of the throne, when news were brought him that the armies in Pannonia and Germany had mutinied. In Pannonia three legions having been allowed some days of relaxation from their usual duties, either to mourn for the death of Augustus, or to rejoice for the accession of Tiberius, grew turbulent and seditious. The Pannonian mutineers were headed by one Percennius, a common soldier; who, before he served in the army, had made it his whole business to form parties in the theatres and playhouses to hiss or applaud such actors as he liked or disliked. Inflamed by the speeches of this man, they openly revolted; and though Tiberius himself wrote to them, and sent his son Drusus to endeavour to quell the tumult, they massacred some of their officers, and insulted others, till at last, being frightened by an eclipse of the moon, they began to show some signs of repentance. Of this favourable disposition Drusus took advantage; and even got the ringleaders of the revolt condemned and executed. Immediately after this they were again terrified by such violent storms and dreadful rains, that they quietly submitted, and every thing in that quarter was restored to tranquillity.

The revolt of the German legions threatened much more danger, as they were more numerous than those of Pannonia. They proceeded nearly in the same way as the Pannonian legions, falling upon their officers, especially the centurions, and beating them till they almost expired, drove them out of the camp, and some of them were even thrown into the Rhine. Germanicus, who was at that time in Gaul, hastened to the camp on the first news of the disturbance; but being unable to prevail on them to return to their duty, he was obliged to feign letters from Tiberius, granting all their demands. These were, That all those who had served 20 years should be discharged; that such as had served 16 should be deemed veterans; and that some legacies which had been left them by Augustus should not only be paid immediately, but doubled. This last article he was obliged to discharge without delay out of the money which he and his friends had brought to defray the expences of their journey; and on receiving it, the troops quietly retired to their winter-quarters. But, in the mean time, some deputies sent either by Tiberius or the senate, probably to quell the sedition, occasioned fresh disturbances; for the legionaries, taking it into their heads that these deputies were come to revoke the concessions which Germanicus had made, were with difficulty prevented from tearing them in pieces; and, notwithstanding the utmost endeavours of Germanicus, behaved in such an outrageous manner, that the general thought proper to send off his wife Agrippina, with her infant son Claudius, she herself at the same time being big with child. As she was attended by many women of distinction, wives of the chief officers in the camp, their tears and lamentations in parting with their husbands occasioned a great uproar, and drew together the soldiers from all quarters. A new scene ensued, which made an impression even upon the most obstinate. They could not behold, without shame and compassion, so many women of rank travelling thus forlorn, without a centurion to attend them, or a soldier to guard them; and their general's wife among the rest, carrying her infant child in her arms, and preparing to fly for shelter against the treachery of the Roman legions. This made such a deep impression on the minds of many of them, that some ran to stop her, while the rest recurred to Germanicus, earnestly intreating him to recal his wife, and to prevent her from being obliged to seek a sanctuary among foreigners. The general improved this favourable disposition, and in a short time they of their own accord seized and massacred the ringleaders of the revolt. Still, however, two of the legions continued in their disobedience. Against them therefore Germanicus determined to lead those who had returned to their duty. With this view he prepared vessels; but before he embarked his troops, he wrote a letter to Cæcina who commanded them, acquainting him that he approached with a powerful army, resolved to put them all to the sword without distinction, if they did not prevent him by taking vengeance on the guilty themselves. This letter, Cæcina communicated only to the chief officers and such of the soldiers as had all along disapproved of the revolt, exhorting them at the same time to enter into an association against the seditious, and put to the sword such as had involved them in the present ignominy and guilt. This proposal was approved of, and a cruel massacre immediately took place; insomuch that when Germanicus came to the camp, he found the greatest part of the legions destroyed. This greatly affected the humane Germanicus, who caused the bodies of the slain to be burnt, and celebrated their obsequies with the usual solemnities; however, the sedition was thus effectually quelled, after which he led his army into Germany. There he performed many great exploits *; but still all that he could perform was far from freeing the empire from so dangerous and troublesome an enemy. In the year 19, he died, of poison, as was supposed, given by Piso, his partner in the government of Syria, to which Germanicus had been promoted after his return from the north.

270 The revolt quelled by a dreadful massacre.

* See Germany.

In the mean time, Tiberius, though he affected to court the favour of the people by various methods, yet showed himself in general such a cruel and bloodthirsty tyrant, that he became the object of universal abhorrence. Though he had hated Germanicus in his heart, he punished Piso with death; but in about a year after the death of Germanicus, having now no object of jealousy to keep him in awe, he began to pull off the mask, and appear more in his natural character than before. He took upon himself the interpretation of all political measures, and began daily to diminish the authority of the senate; which design was much facilitated, by their own aptitude to slavery,

271 Tiberius a cruel tyrant.

Rome.

very; so that he despised their meanness, while he enjoyed its effects. A law at that time subsisted, which made it treason to form any injurious attempt against the majesty of the people. Tiberius assumed to himself the interpretation and enforcement of this law; and extended it not only to the cases which really affected the safety of the state, but to every conjuncture that could possibly be favourable to his hatred or suspicions. All freedom was now therefore banished from convivial meetings, and diffidence reigned amongst the dearest relations. The law of offended majesty being revived, many persons of distinction fell a sacrifice to it.

272 Rise of Sejanus a wicked minister.

In the beginning of these cruelties, Tiberius took into his confidence Sejanus, a Roman knight, but by birth a Volscian, who found out the method of gaining his confidence, by the most refined degree of dissimulation, being an overmatch for his master in his own arts. He was made by the emperor captain of the prætorian guards, one of the most confidential trusts in the state, and extolled in the senate as a worthy associate in his labours. The servile senators, with ready adulation, set up the statues of the favourite beside those of Tiberius, and seemed eager to pay him similar honours. It is not well known whether he was the adviser of all the cruelties that ensued soon after; but certain it is, that, from the beginning of his ministry, Tiberius seemed to become more fatally suspicious.

273 His infamous conduct.

It was from such humble beginnings that this minister even ventured to aspire at the throne, and was resolved to make the emperor's foolish confidence one of the first steps to his ruin. However, he considered that cutting off Tiberius alone would rather retard than promote his designs, while his son Drusus, and the children of Germanicus were yet remaining. He therefore began by corrupting Livia, the wife of Drusus; whom, after having debauched her, he prevailed upon to poison her husband. This was effected by means of a slow poison (as we are told), which gave his death the appearance of a casual distemper. Tiberius, in the mean time, either naturally phlegmatic, or at least not much regarding his son, bore his death with great tranquillity. He was even heard to jest upon the occasion; for when the ambassadors from Troy came somewhat late with their compliments of condolence, he answered their pretended distresses, by condoling with them also upon the death of Hector.

Sejanus having succeeded in this, was resolved to make his next attempt upon the children of Germanicus, who were undoubted successors to the empire. However, he was frustrated in his designs, both with regard to the fidelity of their governors, and the chastity of Agrippina their mother. Whereupon he resolved upon changing his aims, and removing Tiberius out of the city; by which means he expected more frequent opportunities of putting his designs into execution. He therefore used all his address to persuade Tiberius to retire to some agreeable retreat, remote from Rome. By this he expected many advantages, since there could be no access to the emperor but by him. Thus all letters being conveyed to the prince by soldiers at his own devotion, they would pass through his hands; by which means he must in time become the sole governor of the empire, and at last be in a capacity of removing all obstacles to his ambition. He now therefore began to insinuate to Tiberius the great and numerous inconveniences of the city, the fatigues of attending the senate, and the seditious temper of the inferior citizens of Rome.

274 Tiberius retires from Rome.

Tiberius, either prevailed upon by his persuasions, or pursuing the natural turn of his temper, which led to indolence and debauchery, in the twelfth year of his reign left Rome, and went into Campania, under pretence of dedicating temples to Jupiter and Augustus. After this, though he removed to several places, he never returned to Rome; but spent the greatest part of his time in the island of Caprea, a place which was rendered as infamous by his pleasures as detestable by his cruelties, which were shocking to human nature. Buried in this retreat, he gave himself up to his pleasures, quite regardless of the miseries of his subjects. Thus an insurrection of the Jews, upon placing his statue in Jerusalem, under the government of Pontius Pilate, gave him no sort of uneasiness. The falling of an amphitheatre at Fidenæ, in which 50,000 persons were either killed or wounded, no way affected his repose. He was only employed in studying how to vary his odious pleasures, and forcing his feeble frame, shattered by age and former debaucheries, into the enjoyment of them. Nothing can present a more horrid picture than the retreat of this impure old man, attended by all the ministers of his perverted appetites. He was at this time 67 years old; his person was most displeasing; and some say the disagreeableness of it, in a great measure, drove him into retirement. He was quite bald before; his face was all broke out into ulcers, and covered over with plasters; his body was bowed forward, while its extreme height and leanness increased its deformity. With such a person, and a mind still more hideous, being gloomy, suspicious, and cruel, he sat down with a view rather of forcing his appetites than satisfying them. He spent whole nights in debaucheries at the table; and he appointed Pomponius Flaccus and Lucius Piso to the first posts of the empire, for no other merit than that of having sat up with him two days and two nights without interruption. These he called his friends of all hours. He made one Novelius Torgnatus a prætor for being able to drink off five bottles of wine at a draught. His luxuries of another kind were still more detestable, and seemed to increase with his drunkenness and gluttony. He made the most eminent women of Rome subservient to his lusts; and all his inventions only seemed calculated how to make his vices more extravagant and abominable. The number ess obscene medals dug up in that island at this day bear witness at once to his shame, and the veracity of the historians who have described his debaucheries. In short, in this retreat, which was surrounded with rocks on every side, he quite gave up the business of the empire; or, if he was ever active, it was only to do mischief. But, from the time of his retreat, he became more cruel, and Sejanus always endeavoured to increase his distrusts. Secret spies and informers were placed in all parts of the city, who converted the most harmless actions into subjects of offence. If any person of merit testified any concern for the glory of the empire, it was immediately construed into a design to obtain it. If another spoke with regret of former liberty, he was supposed to aim at re-establishing the commonwealth. Every action became liable to forced interpretations; joy expressed an hope of the prince's death; melancholy, an envying of his

275 His abominable conduct in his retreat.

Rome.

his prosperity. Sejanus found his aim every day succeeding; the wretched emperor's terrors were an instrument that he wrought upon at his pleasure, and by which he levelled every obstacle to his designs. But the chief objects of his jealousy were the children of Germanicus, whom he resolved to put out of the way. He therefore continued to render them obnoxious to the emperor, to alarm him with false reports of their ambition, and to terify them with alarms of his intended cruelty. By these means, he so contrived to widen the breach, that he actually produced on both sides those dispositions which he pretended to obviate; till at length, the two princes Nero and Drusus were declared enemies to the state, and afterwards starved to death in prison; while Agrippina their mother was sent into banishment.

276 The children of Germanicus put to death.

In this manner Sejanus proceeded, removing all who stood between him and the empire, and every day increasing in confidence with Tiberius, and power with the senate. The number of his statues exceeded even those of the emperor; people swore by his fortune, in the same manner as they would have done had he been actually upon the throne, and he was more dreaded than even the tyrant who actually enjoyed the empire. But the rapidity of his rise seemed only preparatory to the greatness of his downfall. All we know of his first disgrace with the emperor is, that Satrius Secundus was the man who had the boldness to accuse him. Antonia, the mother of Germanicus, seconded the accusation. What were the particulars of his crimes, we cannot learn; but certain it is, that he attempted to usurp the empire, by aiming at the life of Tiberius. He was very near dispatching him, when his practices were discovered, and his own life was substituted for that against which he aimed. Tiberius, sensible of the traitor's power, proceeded with his usual dissimulation in having him apprehended. He granted him new honours at the very time he resolved his death, and took him as his colleague in the consulship. The emperor's letter to the senate began only with slight complaints against his friend, but ended with an order for putting him in prison. He intreated the senators to protect a poor old man, as he was, abandoned by all; and, in the mean time, prepared ships for his flight, and ordered soldiers for his security. The senate, who had been long jealous of the favourite's power, and dreaded his cruelty, immediately took this opportunity of going beyond their orders. Instead of sentencing him to imprisonment, they directed his execution. A strange revolution now appeared in the city; of those numbers that but a moment before were pressing into the presence of Sejanus, with offers of service and adulation, not one was found that would seem to be of his acquaintance: he was deserted by all; and those who had formerly received the greatest benefits from him, seemed now converted into his most inveterate enemies. As he was conducting to execution, the people loaded him with insult and execration. He attempted to hide his face with his hands; but even this was denied him, and his hands were secured. Nor did the rage of his enemies subside with his death; his body was ignominiously dragged about the streets, and his whole family executed with him.

277 Sejanus disgraced and put to death.

His death only lighted up the emperor's rage for further executions. The prisons were crowded with pretended accomplices in the conspiracy of Sejanus. Tiberius began to grow weary of particular executions; he therefore gave orders that all the accused should be put to death together without further examination. Of 20 senators, whom he chose for his council, he put 16 to death. "Let them hate me (cried he) so long as they obey me." He then averred, that Priam was a happy man, who outlived all his posterity. In this manner there was not a day without some barbarous execution, in which the sufferers were obliged to undergo the most shameful indignities and exquisite torments. When one Camillus had killed himself to avoid the torture: "Ah (cried Tiberius), how that man has been able to escape me!" When a prisoner earnestly intreated that he would not defer his death: "No (cried the tyrant), I am not sufficiently your friend, to shorten your torment." He often satisfied his eyes with the tortures of the wretches that were put to death before him; and in the days of Suetonius the rock was to be seen, from which he ordered such as had displeased him to be thrown headlong. As he was one day examining some persons upon the rack, he was told that an old friend of his was come from Rhodes to see him. Tiberius supposing him brought for the purpose of information, immediately ordered him to the torture; and when he was convinced of his mistake, he ordered him to be put to death, to prevent farther discovery.

Rome.

278 Monstrous cruelty of Tiberius.

In this manner did the tyrant continue to torment others, although he was himself still more tortured by his own suspicions; so that in one of his letters to the senate, he confessed that the gods and godesses had so afflicted and confounded him, that he knew not what or how to write. In the mean time, the frontier provinces were invaded with impunity by the barbarians. Mæsia was seized on by the Dacians and Sarmatians; Gaul was wasted by the Germans, and Armenia conquered by the king of Parthia. Tiberius, however, was so much a slave to his brutal appetites, that he left his provinces wholly to the care of his lieutenants, and they were intent rather on the accumulation of private fortune than the safety of the state. Such a total disorder in the empire produced such a degree of anxiety in him who governed it, that he was heard to wish, that heaven and earth might perish when he died. At length, however, in the 22d year of his reign, he began to feel the approaches of his dissolution, and all his appetites totally to forsake him. He now, therefore, found it was time to think of a successor, and hesitated for a long while, whether he should choose Caligula, whose vices were too apparent to escape his observation. He had been often heard to say, that this youth had all the faults of Sylla, without his virtues; that he was a serpent that would sting the empire, and a Phæton that would set the world in a flame. However, notwithstanding all his well-grounded apprehensions, he named him for his successor; willing, perhaps, by the enormity of Caligula's conduct to cover the memory of his own.

279 Chooses Caligula for his successor.

But though he thought fit to choose a successor, he concealed his approaching decline with the utmost care, as if he was willing at once to hide it from the world and himself. He long had a contempt for physic, and refused the advice of such as attended him; he even seemed to take a pleasure in being present at the sports of the soldiers, and ventured himself to throw a javelin at a boar that was let loose before him. The effort which he made upon this occasion caused a pain in his side.

Rome.

side, which hastened the approaches of death: still, however, he seemed willing to avoid his end; and strove, by change of place, to put off the inquietude of his own reflections. He left his favourite island, and went upon the continent, where he at last fixed at the promontory of Misenum. It was here that Charicles, his physician, pretended to kiss his hand, felt the failure of his pulse; and apprised Macro, the emperor's present favourite, that he had not above two days to live. Tiberius, on the contrary, who had perceived the art of Charicles, did all in his power to impress his attendants with an opinion of his health: he continued at table till the evening; he saluted all his guests as they left the room, and read the acts of the senate, in which they had absolved some persons he had written against with great indignation. He resolved to take signal vengeance of their disobedience, and meditated new schemes of cruelty, when he fell into such faintings, as all believed were fatal. It was in this situation, that, by Macro's advice, Caligula prepared to secure the succession. He received the congratulations of the whole court, caused himself to be acknowledged by the Prætorian soldiers, and went forth from the emperor's apartment amidst the applauses of the multitude; when all of a sudden he was informed that the emperor was recovered, that he had begun to speak, and desired to eat. This unexpected account filled the whole court with terror and alarm: every one who had before been earnest in testifying their joy, now re-assumed their pretended sorrow, and left the new emperor, through a feigned solicitude for the fate of the old. Caligula himself seemed thunderstruck; he preserved a gloomy silence, expecting nothing but death, instead of the empire at which he had aspired. Macro, however, who was hardened in crimes, ordered that the dying emperor should be dispatched, by smothering him with pillows, or, as others will have it, by poison. In this manner Tiberius died, in the 78th year of his age, after reigning 22.

280 Corruptions of the Romans at this time.

The Romans were, at this time, arrived at their highest pitch of effeminacy and vice. The wealth of almost every nation of the empire, having, for some time, circulated through the city, brought with it the luxuries peculiar to each country; so that Rome presented a detestable picture of various pollution. In this reign lived Apicius, so well known for having reduced gluttony into a system; some of the most notorious in this way, thought it no shame to give near 100 pounds for a single fish, and exhaust a fortune of 50,000 pounds in one entertainment. Debaucheries of every other kind kept pace with this; while the detestable folly of the times thought it was refining upon pleasure to make it unnatural. There were at Rome men called *Spintriæ*, whose sole trade it was to study new modes of pleasure; and these were universally favourites of the great. The senators had long fallen from their authority, and were no less estranged from their integrity and honour. Their whole study seemed to be, how to invent new ways of flattering the emperor, and various methods of tormenting his supposed enemies. The people were still more corrupt: they had, for some years, been accustomed to live in idleness, upon the donations of the emperor; and, being satisfied with subsistence, entirely gave up their freedom. Too effeminate and cowardly to go to war, they only railed against their governors; so that they were bad soldiers and seditious citizens. In the 18th year of this monarch's reign, Christ was crucified. Shortly after his death, Pilate is said to have written to Tiberius an account of his passion, resurrection, and miracles; upon which the emperor made a report of the whole to the senate, desired that Christ might be accounted a god by the Romans. But the senate being displeased that the proposal had not come first from themselves, refused to allow of his apotheosis; alleging an ancient law, which gave them the superintendance in all matters of religion. They even went so far, as by an edict to command that all Christians should leave the city: but Tiberius, by another edict, threatened death to all such as should accuse them; by which means they continued unmolested during the rest of his reign.

281 Christ crucified.

No monarch ever came to the throne with more advantages than Caligula. He was the son of Germanicus, who had been the darling of the army and the people. He was bred among the soldiers, from whom he received the name of *Caligula*, from the short buskin, called *caliga*, that was worn by the common centinels, and which was also usually worn by him. As he approached Rome, the principal men of the state went out in crowds to meet him. He received the congratulations of the people on every side, all equally pleased in being free from the cruelties of Tiberius, and in hoping new advantages from the virtues of his successor.

Caligula seemed to take every precaution to impress them with the opinion of a happy change. Amidst the rejoicings of the multitude he advanced mourning, with the dead body of Tiberius, which the soldiers brought to be burnt at Rome, according to the custom of that time. Upon his entrance into the city, he was received with new titles of honour by the senate, whose chief employment seemed now to be, the art of increasing their emperor's vanity. He was left co-heir with Gemellus, grandson to Tiberius; but they set aside the nomination, and declared Caligula sole successor to the empire. The joy for this election was not confined to the narrow bounds of Italy; it spread through the whole empire, and victims without number were sacrificed upon the occasion. Some of the people, upon his going into Campania, made vows for his return; and shortly after, when he fell sick, the multitudes crowded whole nights round his palace, and some even devoted themselves to death in case he recovered, setting up bills of their resolutions in the streets. In this affection of the citizens, strangers themselves, seemed ambitious of sharing. Artabanus, king of Parthia, sought the emperor's alliance with assiduity. He came to a personal conference with one of his legates; passed the Euphrates, adorned the Roman eagles, and kissed the emperor's images; so that the whole world seemed combined to praise him for virtues which they supposed him to possess.

282 Caligula begins to reign well.

The new emperor at first seemed extremely careful of the public favour; and having performed the funeral solemnities of Tiberius, he hastened to the islands of Pandataria and Pontia, to remove the ashes of his mother and brothers, exposing himself to the dangers of tempestuous weather, to give a lustre to his piety. Having brought them to Rome, he instituted annual solemnities in their honour, and ordered the month of September to be called *Germanicus*, in memory of his father.

These

These ceremonies being over, he conferred the same honours upon his grandmother Antonia, which had before been given to Livia; and ordered all informations to be burnt, that any ways exposed the enemies of his family. He even refused a paper that was offered him, tending to the discovery of a conspiracy against him; alleging, That he was conscious of nothing to deserve any man's hatred, and therefore had no fears from their machinations. He caused the institutions of Augustus, which had been disused in the reign of Tiberius, to be revived; undertook to reform many abuses in the state, and severely punished corrupt governors. Among others, he banished Pontius Pilate into Gaul, where this unjust magistrate afterwards put an end to his life by suicide. He banished the spintriæ, or inventors of abominable recreations, from Rome; attempted to restore the ancient manner of electing magistrates by the suffrages of the people; and gave them a free jurisdiction, without any appeal to himself. Although the will of Tiberius was annulled by the senate, and that of Livia suppressed by Tiberius, yet he caused all their legacies to be punctually paid; and in order to make Gemellus amends for missing the crown, he caused him to be elected Princeps Juventutis, or principal of the youth. He restored some kings to their dominions who had been unjustly dispossessed by Tiberius, and gave them the arrears of their revenues. And, that he might appear an encourager of every virtue, he ordered a female slave a large sum of money for enduring the most exquisite torments without discovering the secrets of her master. So many concessions, and such apparent virtue, could not fail of receiving just applause. A shield of gold, bearing his image, was decreed to be carried annually to the Capitol, attended by the senate and the sons of the nobility singing in praise of the emperor's virtues. It was likewise ordained, that the day on which he was appointed to the empire should be called *Pubitia*; implying, that when he came to govern, the city received a new foundation.

263 but becomes a most outrageous tyrant.

In less than eight months all this shew of moderation and clemency vanished; while furious passions, unexampled avarice, and capricious cruelty, began to take their turn in his mind. As most of the cruelties of Tiberius arose from suspicion, so most of those committed by Caligula took rise from prodigality. Some indeed assert, that a disorder which happened soon after his accession to the empire, entirely discomposed his understanding. However this may be, madness itself could scarcely dictate cruelties more extravagant, or inconsistencies more ridiculous, than are imputed to him; some of them appear almost beyond belief, as they seem entirely without any motive to incite such barbarities.

The first object of his cruelty was a person named *Politus*, who had devoted himself to death, in case the emperor, who was then sick, should recover. When Caligula's health was re-established, he was informed of the zeal of Politus, and actually compelled him to complete his vow. This ridiculous devotee was therefore led round the city, by children, adorned with chaplets, and then put to death, being thrown headlong from the ramparts. Another, named *Secundus*, had vowed to fight in the amphitheatre upon the same occasion. To this he was also compelled, the emperor himself choosing to be a spectator of the combat. However, he was more fortunate than the former, being so successful as to kill his adversary, by which he obtained a release from his vow. Gemellus was the next who suffered from the tyrant's inhumanity. The pretence against him was, that he had wished the emperor might not recover, and that he had taken a counter poison to secure him from any secret attempts against his life. Caligula ordered him to kill himself; but as the unfortunate youth was ignorant of the manner of doing it, the emperor's messenger soon instructed him in the fatal lesson. Silenus, the emperor's father-in-law, was the next that was put to death upon slight suspicions; and Gercinus, a senator of noted integrity, refusing to witness falsely against him, shared his fate. After these followed a crowd of victims to the emperor's avarice or suspicion. The pretext against them was their enmity to his family; and in proof of his accusations he produced those very memorials which but a while before he pretended to have burnt. Among the number of those who were sacrificed to his jealousy, was Macro, the late favourite of Tiberius, and the person to whom Caligula owed his empire. He was accused of many crimes, some of which were common to the emperor as well as to him, and his death brought on the ruin of his whole family.

These cruelties, however, only seemed the first fruits of a mind naturally timid and suspicious: his vanity and profusion soon gave rise to others which were more atrocious, as they sprung from less powerful motives. His pride first began by assuming to himself the title of *ruler*, which was usually granted only to kings. He would also have taken the crown and diadem, had he not been advised that he was already superior to all the monarchs of the world. Not long after, he assumed divine honours, and gave himself the names of such divinities as he thought most agreeable to his nature. For this purpose he caused the heads of the statues of Jupiter and some other gods to be struck off, and his own to be put in their places. He frequently seated himself between Castor and Pollux, and ordered all who came to their temple to worship, should pay their adorations only to him; nay, at last he altered their temple to the form of a portico, which he joined to his palace, that the very gods, as he said, might serve him in the quality of porters.

He was not less notorious for the depravation of his appetites than for his ridiculous presumptions. Neither person, place, nor sex, were obstacles to the indulgence of his unnatural lusts. There was scarcely a lady of any quality in Rome that escaped his lewdness; and, indeed, such was the degeneracy of the times, that there were few ladies who did not think this disgrace an honour. He committed incest with his three sisters, and at public feasts they lay with their heads upon his bosom, by turns. Of these he prostituted Livia and Agrippina to his vile companions, and then banished them as adultresses and conspirators against his person. As for Drusilla, he took her from her husband Longinus, and kept her as his wife. Her he loved so affectionately, that, being sick, he appointed her as heiress of his empire and fortune; and she happening to die before him, he made her a goddess. Nor did her example when living, appear more dangerous to the people than her divinity when dead. To mourn for her death was a crime, as she was become a goddess; and to rejoice for her divinity was capital, because she was dead. Nay, even silence

lence itself was an unpardonable insensibility, either of the emperor's loss or his sister's advancement. Thus he made his sister subservient to his profit, as before he had done to his pleasure; raising vast sums of money by granting pardons to some, and by confiscating the goods of others. As to his marriages, whether he contracted them with greater levity, or dissolved them with greater injustice, is not easy to determine. Being present at the nuptials of Livia Orestilla with Piso, as soon as the solemnity was over, he commanded her to be brought to him as his own wife, and then dismissed her in a few days. He soon after banished her upon suspicion of cohabiting with her husband after she was parted from him. He was enamoured of Lollia Paulina, upon a bare relation of her grandmother's beauty; and thereupon took her from her husband, who commanded in Macedonia: notwithstanding which, he repudiated her as he had done the former, and likewise forbade her future marrying with any other. The wife who caught most firmly upon his affections was Milonia Cæsonia, whose chief merit lay in her perfect acquaintance with all the alluring arts of her sex, for she was otherwise possessed neither of youth nor beauty. She continued with him during his reign; and he loved her so ridiculously, that he sometimes showed her to his soldiers dressed in armour, and sometimes to his companions stark naked.

But of all his vices, his prodigality was the most remarkable, and that which in some measure gave rise to the rest. The luxuries of former emperors were simplicity itself, when compared to those which he practised. He contrived new ways of bathing, where the richest oils and most precious perfumes were exhausted with the utmost profusion. He found out dishes of immense value; and had even jewels, as we are told, dissolved among his sauces. He sometimes had services of pure gold presented before his guests instead of meat; observing, that a man should be an economist or an emperor.

For several days together he flung considerable sums of money among the people. He ordered ships of a prodigious bulk to be built of cedar, the stems of ivory inlaid with gold and jewels, the sails and tackling of various silks, while the decks were planted with the choicest fruit trees, under the shade of which he often dined. Here, attended by all the ministers of his pleasures, the most exquisite singers, and the most beautiful youths, he coasted along the shore of Campania with great splendour. All his buildings seemed rather calculated to raise astonishment, than to answer the purposes of utility. But the most notorious instance of his fruitless profusion was the vast bridge at Puteoli, which he undertook in the third year of his reign. To satisfy his desire of being master as well of the ocean as the land, he caused an infinite number of ships to be fastened to each other, so as to make a floating bridge from Baiæ to Puteoli, across an arm of the sea three miles and a half broad. The ships being placed in two rows in form of a crescent, were secured to each other with anchors, chains, and cables. Over these were laid vast quantities of timber, and upon that earth, so as to make the whole resemble one of the streets of Rome. He next caused several houses to be built upon his new bridge, for the reception of himself and his attendants, into which fresh water was conveyed by pipes from land. He then repaired thither with all his court, attended by prodigious throngs of people, who came from all parts to be spectators of such an expensive pageant. It was there that Caligula, adorned with all the magnificence of eastern royalty, sitting on horseback with a civic crown and Alexander's breastplate, attended by the great officers of the army, and all the nobility of Rome, entered at one end of the bridge, and with ridiculous importance rode to the other. At night, the number of torches and other illuminations with which this expensive structure was adorned, cast such a gleam as illuminated the whole bay, and all the neighbouring mountains. This seemed to give the weak emperor new cause for exultation; boasting that he had turned night into day, as well as sea into land. The next morning he again rode over in a triumphal chariot, followed by a numerous train of charioteers, and all his soldiers in glittering armour. He then ascended a rostrum erected for the occasion, where he made a solemn oration in praise of the greatness of his enterprise, and the assiduity of his workmen and his army. He then distributed rewards among his men, and a splendid feast succeeded. In the midst of the entertainment many of his attendants were thrown into the sea; several ships filled with spectators were attacked and sunk in an hostile manner: and although the majority escaped through the calmness of the weather, yet many were drowned; and some who endeavoured to save themselves by climbing to the bridge, were struck down again by the emperor's command. The calmness of the sea during this pageant, which continued for two days, furnished Caligula with fresh opportunities for boasting; being heard to say, "that Neptune took care to keep the sea smooth and serene, merely out of reverence to him."

Expences like these, it may be naturally supposed, must have exhausted the most unbounded wealth: in fact, after reigning about a year, Caligula found his revenues totally exhausted; and a fortune of about 18,000,000 of our money, which Tiberius had amassed together, entirely spent in extravagance and folly. Now, therefore, his prodigality put him upon new methods of supplying the exchequer; and as before his profusion, so now his rapacity became boundless. He put in practice all kinds of rapine and extortion; while his principal study seemed to be the inventing new imposts and illicit confiscations. Every thing was taxed, to the very wages of the meanest tradesman. He caused freemen to purchase their freedom a second time; and poisoned many who had named him for their heir, to have the immediate possession of their fortunes. He set up a brothel in his own palace, by which he gained considerable sums by all the methods of prostitution. He also kept a gaming-house, in which he himself presided, scrupling none of the meanest tricks in order to advance his gains. On a certain occasion having had a run of ill luck, he saw two rich knights passing through his court; upon which he suddenly rose up, and causing both to be apprehended, confiscated their estates, and then joining his former companions, boasted that he never had a better throw in his life. Another time, wanting money for a stake, he went down and caused several noblemen to be put to death; and then returning, told the company that they sat playing for trifles while he had won 60,000 sesterces at a cast.

Such insupportable and capricious cruelties produced many

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284 Ridiculous expeditions against Britain and Germany.

many secret conspiracies against him; but these were for a while deferred, upon account of his intended expedition against the Germans and Britons, which he undertook in the third year of his reign. For this purpose, he caused numerous levies to be made in all parts of the empire; and talked with so much resolution, that it was universally believed he would conquer all before him. His march perfectly indicated the inequality of his temper: sometimes it was so rapid, that the cohorts were obliged to leave their standards behind them; at other times it was so slow, that it more resembled a pompous procession than a military expedition. In this disposition he would cause himself to be carried on eight men's shoulders, and order all the neighbouring cities to have their streets well swept and watered to defend him from the dust. However, all these mighty preparations ended in nothing. Instead of conquering Britain, he only gave refuge to one of its banished princes; and this he described in a letter to the senate, as taking possession of the whole island. Instead of conquering Germany, he only led his army to the sea shore in Batavia. There disposing his engines and warlike machines with great solemnity, and drawing up his men in order of battle, he went on board his galley, with which coasting along, he commanded his trumpets to sound and the signal to be given as if for an engagement; upon which his men having had previous orders, immediately fell to gathering the shells that lay upon the shore into their helmets, terming them the *spoils of the conquered ocean, worthy of the palace and the capitol.* After this doughty expedition, calling his army together as a general after victory, he harangued them in a pompous manner, and highly extolled their achievements; and then distributing money among them, dismissed them with orders to be joyful, and congratulated them upon their riches. But that such exploits should not pass without a memorial, he caused a lofty tower to be erected by the seaside; and ordered the galleys in which he had put to sea to be conveyed to Rome in a great measure by land.

285 Meanness of the senate.

After numberless instances of folly and cruelty in this expedition, among which he had intentions of destroying the whole army that had formerly mutinied under his father Germanicus, he began to think of a triumph. The senate, who had long been the timid ministers of his pride and cruelty, immediately set about consulting how to satisfy his expectations. They considered that a triumph would, even to himself, appear as a burlesque upon his expedition: they therefore decreed him only an ovation. Having come to this resolution, they sent him a deputation, informing him of the honours granted him, and the decree, which was drawn up in terms of the most extravagant adulation. However, their flattery was far from satisfying his pride. He considered their conduct rather as a diminution of his power, than an addition to his glory. He therefore ordered them, on pain of death, not to concern themselves with his honours; and being met by their messengers on the way, who invited him to come and partake of the preparations which the senate had decreed, he informed them that he would come; and then laying his hand upon his sword, added, that he would bring that also with him. In this manner either quite omitting his triumph, or deferring it to another time, he entered the city with only an ovation; while the senate passed the whole day in acclamations in his praise, and speeches filled with the most excessive flattery. This conduct in some measure served to reconcile him, and soon after their excessive zeal in his cause entirely gained his favour. For it happened that Protogenes, who was one of the most intimate and the most cruel of his favourites, coming into the house, was fawned upon by the whole body of the senate, and particularly by Proculus. Whereupon Protogenes with a fierce look, asked how one who was such an enemy to the emperor could be such a friend to him? There needed no more to excite the senate against Proculus. They instantly seized upon him, and violently tore him in pieces; plainly showing by their conduct, that tyranny in a prince produces cruelty in those whom he governs.—It was after returning from this extravagant expedition, that he was waited upon by a deputation of the Jews of Alexandria, who came to deprecate his anger for not worshipping his divinity as other nations had done. The emperor gave them a very ungracious reception, and would probably have destroyed their countrymen if he had not soon after been cut off.

This affair of the Jews remained undecided during his reign; but it was at last settled by his successor to their satisfaction. It was upon this occasion that Philo made the following remarkable answer to his associates, who were terrified with apprehensions of the emperor's indignation: "Fear nothing (cried he to them), Caligula, by declaring against us, puts God on our side."

286 A conspiracy formed against the emperor,

The continuation of this horrid reign seemed to threaten universal calamity: however, it was but short. There had already been several conspiracies formed to destroy the tyrant, but without success. That which at last succeeded in delivering the world of this monster, was concerted under the influence of Cassius Cherea, tribune of the prætorian bands. This was a man of experienced courage, an ardent admirer of freedom, and consequently an enemy to tyrants. Besides the motives which he had in common with other men, he had received repeated insults from Caligula, who took all occasions of turning him into ridicule, and impeaching him of cowardice, merely because he had an effeminate voice. Whenever Cherea came to demand the watchword from the emperor, according to custom, he always gave him either Venus, Adonis, or some such, implying effeminacy and softness. He therefore secretly imparted his designs to several senators and knights, whom he knew to have received personal injuries from Caligula, or to be apprehensive of those to come. Among these was Valerius Asiaticus, whose wife the emperor had debauched. Annius Vincianus, who was suspected of having been in a former conspiracy, was now desirous of really engaging in the first design that offered. Besides these were Clemens the prefect; and Calistus, whose riches made him obnoxious to the tyrant's resentment.

While these were deliberating upon the most certain and speedy method of destroying the tyrant, an unexpected incident gave new strength to the conspiracy. Pompedius, a senator of distinction, having been accused before the emperor, of having spoken of him with disrespect, the informer cited one Quintilia, an actress, to confirm his accusation. Quintilia, however, was possessed of a degree of fortitude not easily found. She denied the fact with obstinacy; and being put to the torture at the informer's request, she bore the severest torments

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ments of the rack with unshaken constancy. But what is most remarkable of her resolution is, that she was acquainted with all the particulars of the conspiracy; and although Cherea was appointed to preside at her torture, she revealed nothing: on the contrary, when she was led to the rack, she trod upon the toe of one of the conspirators, intimating at once her knowledge of the confederacy, and her own resolution not to divulge it. In this manner she suffered until all her limbs were dislocated; and in that deplorable state was presented to the emperor, who ordered her a gratuity for what she had suffered. Cherea could now no longer contain his indignation at being thus made the instrument of a tyrant's cruelty. He therefore proposed to the conspirators to attack him as he went to offer sacrifices in the capitol, or while he was employed in the secret pleasures of the palace. The rest, however, were of opinion, that it was best to fall upon him when he should be unattended; by which means they would be more certain of success. After several deliberations, it was at last resolved to attack him during the continuance of the Palatine games, which lasted four days; and to strike the blow when his guards should have the least opportunity to defend him. In consequence of this, the three first days of the games passed without affording that opportunity which was so ardently desired. Cherea now, therefore, began to apprehend, that deferring the time of the conspiracy might be a mean to divulge it: he even began to dread, that the honour of killing the tyrant might fall to the lot of some other person more bold than himself. Wherefore, he at last resolved to defer the execution of his plot only to the day following, when Caligula should pass through a private gallery, to some baths not far distant from the palace.

287 who is murdered.

The last day of the games was more splendid than the rest; and Caligula seemed more sprightly and condescending than usual. He took great amusement in seeing the people scramble for the fruits and other rarities thrown by his order among them; and seemed no way apprehensive of the plot formed for his destruction. In the mean time, the conspiracy began to transpire; and had he possessed any friends, it could not have failed of being discovered. The conspirators waited a great part of the day with the most extreme anxiety; and at one time Caligula seemed resolved to spend the whole day without any refreshment. This unexpected delay entirely exasperated Cherea; and had he not been restrained, he would have gone and perpetrated his design in the midst of all the people. Just at that instant, while he was yet hesitating what he should do, Asprenas, one of the conspirators, persuaded Caligula to go to the bath and take some slight refreshment, in order to enjoy the rest of the entertainment with greater relish. The emperor therefore rising up, the conspirators used every precaution to keep off the throng, and to surround him, under pretence of greater assiduity. Upon entering into the little vaulted gallery that led to the bath, he was met by a band of Grecian children who had been instructed in singing, and were come to perform in his presence. He was once more therefore going to return to the theatre with them, had not the leader of the band excused himself, as having a cold. This was the moment that Cherea seized to strike him to the ground; crying out, "Tyrant think upon this." Immediately after, the other conspirators rushed in; and while the emperor continued to resist, crying out, that he was not yet dead, they dispatched him with 30 wounds, in the 29th year of his age, after a short reign of three years ten months and eight days. With him his wife and infant daughter also perished; the one being stabbed by a centurion, the other having its brains dashed out against the wall. His coin was also melted down by a decree of the senate; and such precautions were taken, that all seemed willing, that neither his features nor his name might be transmitted to posterity.

288 Great confusion ensues on his death.

As soon as the death of Caligula was made public, it produced the greatest confusion in all parts of the city. The conspirators, who only aimed at destroying a tyrant without attending to a successor, had all sought safety by retiring to private places. Some thought the report of the emperor's death was only an artifice of his own, to see how his enemies would behave. Others averred that he was still alive, and actually in a fair way to recover. In this interval of suspense, the German guards finding it a convenient time to pillage, gave a loose to their licentiousness, under a pretence of revenging the emperor's death. All the conspirators and senators that fell in their way received no mercy: Asprenas, Norbanus, and Anteius, were cut in pieces. However, they grew calm by degrees, and the senate was permitted to assemble, in order to deliberate upon what was necessary to be done in the present emergency.

In this deliberation, Saturninus, who was then consul, insisted much upon the benefits of liberty; and talked in raptures of Cherea's fortitude, alleging that it deserved the highest reward. This was a language highly pleasing to the senate. Liberty now became the favourite topic; and they even ventured to talk of extinguishing the very name of Cæsar. Impressed with this resolution, they brought over some cohorts of the city to their side, and boldly seized upon the Capitol. But it was now too late for Rome to regain her pristine freedom; the populace and the army opposing their endeavours. The former were still mindful of their ancient hatred to the senate; and remembered the donations and public spectacles of the emperors with regret. The latter were sensible they could have no power but in a monarchy; and had some hopes that the election of the emperor would fall to their determination. In this opposition of interests, and variety of opinions, chance seemed at last to decide the fate of the empire. Some soldiers happening to run about the palace, discovered Claudius, Caligula's uncle, lurking in a secret place, where he had hid himself through fear. Of this personage, who had hitherto been despised for his imbecility, they resolved to make an emperor: and accordingly carried him upon their shoulders to the camp, where they proclaimed him at a time he expected nothing but death.

289 Claudius made emperor.

The senate now, therefore, perceiving that force alone was likely to settle the succession, were resolved to submit, since they had no power to oppose. Claudius was the person most nearly allied to the late emperor, then living; being the nephew of Tiberius, and the uncle of Caligula. The senate therefore passed a decree, confirming him in the empire; and went soon after in a body, to render him their compulsive homage,

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mage. Cherea was the first who fell a sacrifice to the jealousy of this new monarch. He met death with all the fortitude of an ancient Roman; desiring to die by the same sword with which he had killed Caligula. Lupus, his friend, was put to death with him; and Sabinus, one of the conspirators, laid violent hands on himself.

Claudius was 50 years old when he began to reign. The complicated diseases of his infancy had in some measure affected all the faculties both of his body and mind. He was continued in a state of pupillage much longer than was usual at that time; and seemed, in every part of his life, incapable of conducting himself. Not that he was entirely destitute of understanding, since he had made a tolerable proficiency in the Greek and Latin languages, and even wrote a history of his own time; which, however destitute of other merit, was not contemptible in point of style. Nevertheless, with this share of erudition, he was unable to advance himself in the state, and seemed utterly neglected until he was placed all at once at the head of affairs. The commencement of his reign gave the most promising hopes of a happy continuance. He began by passing an act of oblivion for all former words and actions, and disannulled all the cruel edicts of Caligula. He forbade all persons, upon severe penalties, to sacrifice to him as they had done to Caligula; was assiduous in hearing and examining complaints; and frequently administered justice in person; tempering by his mildness the severity of the law. We are told of his bringing a woman to acknowledge her son, by adjudging her to marry him. The tribunes of the people coming one day to attend him when he was on the tribunal, he courteously excused himself for not having room for them to sit down. By this deportment he so much gained the affections of the people, that upon a vague report of his being slain by surprise, they ran about the streets in the utmost rage and consternation, with horrid imprecations against all such as were accessary to his death; nor could they be appeased, until they were assured, with certainty, of his safety. He took a more than ordinary care that Rome should be continually supplied with corn and provisions, securing the merchants against pirates. He was not less assiduous in his buildings, in which he excelled almost all that went before him. He constructed a wonderful aqueduct, called after his own name, much surpassing any other in Rome, either for workmanship or plentiful supply. It brought water from 40 miles distance, through great mountains and over deep valleys; being built on stately arches, and furnishing the highest parts of the city. He made also an haven at Ostia; a work of such immense expence, that his successors were unable to maintain it. But his greatest work of all was the draining of the lake Fucinus, which was the largest in Italy, and bringing its water into the Tiber, in order to strengthen the current of that river. For effecting this, among other vast difficulties, he mined through a mountain of stone three miles broad, and kept 30,000 men employed for 11 years together.

290 His happy administration in the beginning of his reign.

To this solicitude for the internal advantages of the state, he added that of a watchful guardianship over the provinces. He restored Judea to Herod Agrippa, which Caligula had taken from Herod Antipas, his uncle, the man who had put John the Baptist to death, and who was banished by order of the present emperor. Claudius also restored such princes to their kingdoms as had been unjustly dispossessed by his predecessors; but deprived the Lycians and Rhodians of their liberty, for having promoted insurrections, and crucified some citizens of Rome.

291 His expedition against Britain.

He even undertook to gratify the people by foreign conquest. The Britons, who had, for near 100 years, been left in sole possession of their own island, began to seek the mediation of Rome, to quell their intestine commotions. The principal man who desired to subject his native country to the Roman dominion, was one Bericus, who, by many arguments, persuaded the emperor to make a descent upon the island, magnifying the advantages that would attend the conquest of it. In pursuance of his advice, therefore, Plautius the prætor was ordered to pass over into Gaul, and make preparations for this great expedition. At first, indeed, his soldiers seemed backward to embark; declaring, that they were unwilling to make war beyond the limits of the world, for so they judged Britain to be. However, they were at last persuaded to go; and the Britons, under the conduct of their king Cynobelinus, were several times overthrown. And these successes soon after induced Claudius to go into Britain in person, upon pretence that the natives were still seditious, and had not delivered up some Roman fugitives who had taken shelter among them; but for a particular account of the exploits of the Romans in this island, see the article ENGLAND.

292 Is induced by his favourites to commit many acts of cruelty.

But though Claudius gave in the beginning of his reign the highest hopes of a happy continuance, he soon began to lessen his care for the public, and to commit to his favourites all the concerns of the empire. This weak prince was unable to act but under the direction of others. The chief of his directors was his wife Messalina: whose name is almost become a common appellation to women of abandoned characters. However, she was not less remarkable for her cruelties than her lusts; as by her intrigues she destroyed many of the most illustrious families of Rome. Subordinate to her were the emperor's freedmen; Pallas, the treasurer; Narcissus, the secretary of state; and Callistus, the master of the requests. These entirely governed Claudius; so that he was only left the fatigues of ceremony, while they were possessed of all the power of the state.

It would be tedious to enumerate the various cruelties which these insidious advisers obliged the feeble emperor to commit: those against his own family will suffice. Appius Silanus, a person of great merit, who had been married to the emperor's mother-in-law, was put to death upon the suggestions of Messalina. After him he slew both his sons-in-law, Silanus and Pompey, and his two nieces the Livias, one the daughter of Drusus, the other of Germanicus; and all without permitting them to plead in their defence, or even without assigning any cause for his displeasure. Great numbers of others fell a sacrifice to the jealousy of Messalina and her minions; who bore so great a sway in the state, that all offices, dignities, and governments, were entirely at their disposal. Every thing was put to sale: they took money for pardons and penalties; and accumulated, by these means, such vast sums, that the wealth of Crœsus was considered as nothing in comparison.

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parison. One day, the emperor complaining that his exchequer was exhausted, he was ludicrously told, that it might be sufficiently replenished if his two freedmen would take him into partnership. Still, however, during such corruption, he regarded his favourites with the highest esteem, and even solicited the senate to grant them peculiar marks of their approbation. These disorders in the ministers of government did not fail to produce conspiracies against the emperor Statius Corvinus and Gallus Assinius formed a conspiracy against him. Two knights, whose names are not told us, privately combined to assassinate him. But the revolt which gave him the greatest uneasiness, and which was punished with the most unrelenting severity, was that of Camillus, his lieutenant-general in Dalmatia. This general, incited by many of the principal men of Rome, openly rebelled against him, and assumed the title of *emperor*. Nothing could exceed the terrors of Claudius, upon being informed of this revolt: his nature and his crimes had disposed him to be more cowardly than the rest of mankind; so that when Camillus commanded him by letters to relinquish the empire, and retire to a private station, he seemed inclined to obey. However, his fears upon this occasion were soon removed: for the legions which had declared for Camillus being terrified by some prodigies, shortly after abandoned him; so that the man whom but five days before they had acknowledged as emperor, they now thought it no infamy to destroy. The cruelty of Messalina and her minions upon this occasion seemed to have no bounds. They so wrought upon the emperor's fears and suspicions, that numbers were executed without trial or proof; and scarce any, even of those who were but suspected, escaped, unless by ransoming their lives with their fortunes.

293 Their infamous conduct.

By such cruelties as these, the favourites of the emperor endeavoured to establish his and their own authority: but in order to increase the necessity of their assistance, they laboured to augment the greatness of his terrors. He now became a prey to jealousy and disquietude. Being one day in the temple, and finding a sword that was left there by accident, he convened the senate in a fright, and informed them of his danger. After this he never ventured to go to any feast without being surrounded by his guards, nor would he suffer any man to approach him without a previous search. Thus wholly employed by his anxiety for self-preservation, he entirely left the care of the state to his favourites, who by degrees gave him a relish for slaughter. From this time he seemed delighted with inflicting tortures; and on a certain occasion continued a whole day at the city Tibur, waiting for a hangman from Rome, that he might feast his eyes with an execution in the manner of the ancients. Nor was he less regardless of the persons he condemned, than cruel in the infliction of their punishment. Such was his extreme stupidity, that he would frequently invite those to supper whom he had put to death but the day before; and often denied the having given orders for an execution, but a few hours after pronouncing sentence. Suetonius assures us, that there were no less than 35 senators, and above 300 knights, executed in his reign; and that such was his unconcern in the midst of slaughter, that one of the tribunes bringing him an account of a certain senator who was executed, he quite forgot his offence, but calmly acquiesced in his punishment.

294 Extravagant lewness of the empress Messalina.

In this manner was Claudius urged on by Messalina to commit cruelties, which he considered only as wholesome severities; while, in the mean time, she put no bounds to her enormities. The impunity of her past vices only increasing her confidence to commit new, her debaucheries became every day more notorious, and her lewdness exceeded what had ever been seen at Rome. She caused some women of the first quality to commit adultery in the presence of their husbands, and destroyed such as refused to comply. After appearing for some years insatiable in her desires, she at length fixed her affections upon Caius Silius, the most beautiful youth in Rome. Her love for the young Roman seemed to amount even to madness. She obliged him to divorce his wife Junia Syllana, that she might entirely possess him herself. She obliged him to accept of immense treasures and valuable presents; cohabiting with him in the most open manner, and treating him with the most shameless familiarity. The very imperial ornaments were transferred to his house; and the emperor's slaves and attendants had orders to wait upon the adulterer. Nothing was wanting to complete the insolence of their conduct, but their being married together; and this was soon after effected. They relied upon the emperor's imbecility for their security, and only waited till he retired to Ostia to put their ill-judged project in execution. In his absence, they celebrated their nuptials with all the ceremonies and splendour which attend the most confident security. Messalina gave a loose to her passion, and appeared as a Bacchanalian with a thyrsus in her hand; while Silius assumed the character of Bacchus, his body being adorned with robes imitating ivy, and his legs covered with buskins. A troop of singers and dancers attended, who heightened the revel with the most lascivious songs and the most indecent attitudes. In the midst of this riot, one Valens, a buffoon, is said to have climbed a tree; and being demanded what he saw, answered that he perceived a dreadful storm coming from Ostia. What this fellow spoke at random was actually at that time in preparation. It seems that some time before there had been a quarrel between Messalina and Narcissus, the emperor's first freedman. This subtle minister therefore desired nothing more than an opportunity of ruining the empress, and he judged this to be a most favourable occasion. He first made the discovery by means of two concubines who attended the emperor, who were instructed to inform him of Messalina's marriage as the news of the day, while Narcissus himself stepped in to confirm their information. Finding it operated upon the emperor's fears as he could wish, he resolved to alarm him still more by a discovery of all Messalina's projects and attempts. He aggravated the danger, and urged the expediency of speedily punishing the delinquents. Claudius, quite terrified at so unexpected a relation, supposed the enemy were already at his gates; and frequently interrupted his freedman, by asking if he was still master of the empire. Being assured that he yet had it in his power to continue so, he resolved to go and punish the affront offered to his dignity without delay. Nothing could exceed the consternation of Messalina and her thoughtless companions, upon being informed that the emperor

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ror was coming to disturb their festivity. Every one retired in the utmost confusion. Silius was taken. Messalina took shelter in some gardens which she had lately seized upon, having expelled Asiaticus the true owner, and put him to death. From thence she sent Britannicus, her only son by the emperor, with Octavia her daughter, to intercede for her, and implore his mercy. She soon after followed them herself; but Narcissus had so fortified the emperor against her arts, and contrived such methods of diverting his attention from her defence, that she was obliged to return in despair. Narcissus being thus far successful, led Claudius to the house of the adulterer, there showing him the apartments adorned with the spoils of his own palace; and then conducting him to the prætorian camp, revived his courage by giving him assurances of the readiness of the soldiers to defend him. Having thus artfully wrought upon his fears and resentment, the wretched Silius was commanded to appear; who, making no defence, was instantly put to death in the emperor's presence. Several others shared the same fate; but Messalina still flattered herself with hopes of pardon. She resolved to leave neither prayers nor tears unattempted to appease the emperor. She sometimes even gave a loose to her resentment, and threatened her accusers with vengeance. Nor did she want ground for entertaining the most favourable expectations. Claudius having returned from the execution of her paramour, and having allayed his resentment in a banquet, began to relent. He now therefore commanded his attendants to apprise that miserable creature, meaning Messalina, of his resolution to hear her accusation the next day, and ordered her to be in readiness with her defence. The permission to defend herself would have been fatal to Narcissus; wherefore he rushed out, and ordered the tribunes and centurions who were in readiness to execute her immediately by the emperor's command. Claudius was informed of her death in the midst of his banquet; but this insensible idiot showed not the least appearance of emotion. He continued at table with his usual tranquillity; and the day following, while he was sitting at dinner, he asked why Messalina was absent, as if he had totally forgotten her crimes and her punishment.

295 She is put to death.

Claudius being now a widower, declared publicly, that as he had hitherto been unfortunate in his marriages, he would remain single for the future, and that he would be contented to forfeit his life in case he broke his resolution. However, the resolutions of Claudius were but of short continuance. Having been accustomed to live under the controul of women, his present freedom was become irksome to him, and he was entirely unable to live without a director. His freedmen therefore perceiving his inclinations, resolved to procure him another wife; and, after some deliberation, they fixed upon Agrippina, the daughter of his brother Germanicus. This woman was more practised in vice than even the former empress. Her cruelties were more dangerous, as they were directed with greater caution: she had poisoned her former husband, to be at liberty to attend the calls of ambition; and, perfectly acquainted with all the infirmities of Claudius, only made use of his power to advance her own. However, as the late declaration of Claudius seemed to be an obstacle to his marrying again, persons were suborned to move in the senate, that he should be compelled to take a wife, as a matter of great importance to the commonwealth; and some more determined flatterers than the rest left the house, as with a thorough resolution, that instant, to constrain him. When this decree passed in the senate, Claudius had scarce patience to contain himself a day before the celebration of his nuptials. However, such was the detestation in which the people in general held these incestuous matches, that though they were made lawful, yet only one of his tribunes, and one of his freedmen, followed his example.

296 The emperor marries Agrippina.

Claudius having now received a new director, submitted with more implicit obedience than in any former part of his reign. Agrippina's chief aims were to gain the succession in favour of her own son Nero, and to set aside the claims of young Britannicus, son to the emperor and Messalina. For this purpose she married Nero to the emperor's daughter Octavia, a few days after her own marriage. Not long after this, she urged the emperor to strengthen the succession, in imitation of his predecessors, by making a new adoption; and caused him take in her son Nero, in some measure to divide the fatigues of government. Her next care was to increase her son's popularity, by giving him Seneca for a tutor. This excellent man, by birth a Spaniard, had been banished by Claudius, upon the false testimony of Messalina, who had accused him of adultery with Julia the emperor's niece. The people loved and admired him for his genius, but still more for his strict morality; and a part of his reputation necessarily devolved to his pupil. This subtle woman was not less assiduous in pretending the utmost affection for Britannicus; whom, however, she resolved in a proper time to destroy: but her jealousy was not confined to this child only; she, shortly after her accession, procured the deaths of several ladies who had been her rivals in the emperor's affections. She displaced the captains of the guard, and appointed Burrhus to that command; a person of great military knowledge, and strongly attached to her interests. From that time she took less pains to disguise her power, and frequently entered the Capitol in a chariot; a privilege which none before were allowed, except of the sacerdotal order.

In the 12th year of this monarch's reign, she persuaded him to restore liberty to the Rhodians, of which he had deprived them some years before; and to remit the taxes of the city Ilium, as having been the progenitors of Rome. Her design in this was to increase the popularity of Nero, who pleaded the cause of both cities with great approbation. Thus did this ambitious woman take every step to aggrandize her son, and was even contented to become hateful herself to the public, merely to increase his popularity.

Such a very immoderate abuse of her power served at last to awaken the emperor's suspicions. Agrippina's imperious temper began to grow insupportable to him, and he was heard to declare, when heated with wine, that it was his fate to suffer the disorders of his wives, and to be their executioner. This expression sunk deep on her mind, and engaged all her faculties to prevent the blow. Her first care was to remove Narcissus, whom she hated upon many accounts, but particularly for his attachment to Claudius. This minister, for some time, opposed her designs; but at length thought fit to retire, by a voluntary exile, into Campania.

nia. The unhappy emperor, thus exposed to all the machinations of his insidious consort, seemed entirely regardless of the danger that threatened his destruction. His affection for Britannicus was perceived every day to increase, which served also to increase the vigilance and jealousy of Agrippina. She now, therefore, resolved not to defer a crime which she had meditated a long while before; namely, that of poisoning her husband. She for some time, however, debated with herself in what manner she should administer the poison; as she feared too strong a dose would discover her treachery, and one too weak might fail of its effects. At length she determined upon a poison of singular efficacy to destroy his intellects, and yet not suddenly to terminate his life. As she had been long conversant in this horrid practice, she applied to a woman called *Locusta*, notorious for assisting on such occasions. The poison was given to the emperor among mushrooms, a dish he was particularly fond of. Shortly after having eaten, he dropped down insensible; but this caused no alarm, as it was usual with him to sit eating till he had stupified all his faculties, and was obliged to be carried off to his bed from the table. However, his constitution seemed to overcome the effects of his potion, when Agrippina resolved to make sure of him: wherefore she directed a wretched physician, who was her creature, to thrust a poisoned feather down his throat, under pretence of making him vomit; and thus dispatched him.

297 By whom he is poisoned.

The reign of this emperor, feeble and impotent as he was, produced no great calamities in the state, since his cruelties were chiefly levelled at those about his person. The list of the inhabitants of Rome at this time amounted to six millions eight hundred and forty-four thousand souls; a number little inferior to all the people of England at this day. The general character of the times was that of corruption and luxury: but the military spirit of Rome, though much relaxed from its former severity, still continued to awe mankind; and though during this reign, the empire might be justly said to be without a head, yet the terror of the Roman name alone kept the nations in obedience.

Claudius being destroyed, Agrippina took every precaution to conceal his death from the public, until she had settled her measures for securing the succession. A strong guard was placed at all the avenues of the palace, while she amused the people with various reports; at one time giving out that he was still alive; at another, that he was recovering. In the meanwhile, she made sure of the person of young Britannicus, under a pretence of affection for him. Like one overcome with the extremity of her grief, she held the child in her arms, calling him the dear image of his father, and thus preventing his escape. She used the same precautions with regard to his sisters, Octavia and Antonia; and even ordered an entertainment in the palace, as if to amuse the emperor. At last, when all things were adjusted, the palace gates were thrown open, and Nero, accompanied by Burrhus, prefect of the Prætorian guards, issued to receive the congratulations of the people and the army. The cohorts then attending, proclaimed him with the loudest acclamations, though not without making some inquiries after Britannicus. He was carried in a chariot to the rest of the army, wherein having made a speech proper to the occasion, and promising them a donation, in the manner of his predecessors, he was declared emperor by the army, the senate, and the people.

298 Nero succeeds to the empire.

Nero's first care was, to show all possible respect to the deceased emperor, in order to cover the guilt of his death. His obsequies were performed with a pomp equal to that of Augustus: the young emperor pronounced his funeral oration, and he was canonized among the gods. The funeral oration, though spoken by Nero, was drawn up by Seneca; and it was remarked, that this was the first time a Roman emperor needed the assistance of another's eloquence.

Nero, though but 17 years of age, began his reign with the general approbation of mankind. As he owed the empire to Agrippina, so in the beginning he submitted to her directions with the most implicit obedience. On her part, she seemed resolved on governing with her natural ferocity, and considered her private animosities as the only rule to guide her in public justice. Immediately after the death of Claudius, she caused Silanus, the proconsul of Asia, to be assassinated upon very slight suspicions, and without ever acquainting the emperor with her design. The next object of her resentment was Narcissus, the late emperor's favourite; a man equally notorious for the greatness of his wealth and the number of his crimes. He was obliged to put an end to his life by Agrippina's order, though Nero refused his consent.

This bloody onset would have been followed by many severities of the same nature, had not Seneca and Burrhus, the emperor's tutor and general, opposed. These worthy men, although they owed their rise to the empress, were above being the instruments of her cruelty. They, therefore, combined together in an opposition; and gaining the young emperor on their side, formed a plan of power, at once the most merciful and wise. The beginning of this monarch's reign, while he continued to act by their counsels, has always been considered as a model for succeeding princes to govern by The famous emperor Trajan used to say, "That for the first five years of this prince all other governments came short of his." In fact, the young monarch knew so well how to conceal his innate depravity, that his nearest friends could scarcely perceive his virtues to be but assumed. He appeared just, liberal, and humane. When a warrant for the execution of a criminal was brought to him to be signed, he was heard to cry out, with seeming concern. "Would to Heaven that I had never learned to write!" The senate, upon a certain occasion, giving him their applause for the regularity and justice of his administration; he replied with singular modesty, "That they should defer their thanks till he had deserved them." His condescension and affability were not less than his other virtues; so that the Romans began to think, that the clemency of this prince would compensate for the tyranny of his predecessors.

299 His excellent administration for five years.

In the mean time, Agrippina, who was excluded from any share in government, attempted, by every possible method, to maintain her declining power. Perceiving that her son had fallen in love with a freedwoman, named *Acte*, and dreading the influence of a concubine, she tried every art to prevent his growing passion. However, in so corrupt a court, it was no difficult matter for the emperor to find other confidants

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300 He provokes his mother.

dants ready to assist him in his wishes. The gratification of his passion, therefore, in this instance, only served to increase his hatred for the empress. Nor was it long before he gave evident marks of his disobedience, by displacing Pallas his chief favourite. It was upon this occasion that she first perceived the total declension of her authority; which threw her into the most ungovernable fury. In order to give terror to her rage, she proclaimed that Britannicus, the real heir to the throne, was still living, and in a condition to receive his father's empire, which was now possessed by an usurper. She threatened to go to the camp, and there expose his baseness and her own, invoking all the furies to her assistance. These menaces served to alarm the suspicions of Nero; who, though apparently guided by his governors, yet had begun to give way to his natural depravity. He, therefore, determined upon the death of Britannicus, and contrived to have him poisoned at a public banquet. Agrippina, however, still retained her natural ferocity: she took every opportunity of obliging and flattering the tribunes and centurions; she heaped up treasures with a rapacity beyond her natural avarice; all her actions seemed calculated to raise a faction, and make herself formidable to the emperor. Whereupon Nero commanded her German guard to be taken from her, and obliged her to lodge out of the palace. He also forbade particular persons to visit her, and went himself but rarely and ceremoniously to pay her his respects. She now, therefore, began to find, that, with the emperor's favour, she had lost the assiduity of her friends. She was even accused by Silana of conspiring against her son, and of designing to marry Plautius, a person descended from Augustus, and making him emperor. A short time after, Pallas her favourite, together with Burrhus, were arraigned for a similar offence, and intending to set up Cornelius Sylla. These informations being proved void of any foundation, the informers were banished; a punishment which was considered as very inadequate to the greatness of the offence.

301 Poisons his brother.

302 Shameful behaviour of the emperor.

As Nero increased in years, his crimes seemed to increase in equal proportion. He now began to find a pleasure in running about the city by night, disguised like a slave. In this vile habit he entered taverns and brothels, attended by the lewd ministers of his pleasures, attempting the lives of such as opposed him, and frequently endangering his own. In imitation of the emperor's example, numbers of profligate young men infested the streets likewise; so that every night the city was filled with tumult and disorder. However, the people bore all these levities, which they ascribed to the emperor's youth, with patience, having occasion every day to experience his liberality, and having also been gratified by the abolition of many of their taxes. The provinces also were no way affected by these riots; for except disturbances on the side of the Parthians, which were soon suppressed, they enjoyed the most perfect tranquillity.

But those sensualities, which, for the first four years of his reign, produced but few disorders, in the fifth became alarming. He first began to transgress the bounds of decency; by publicly abandoning Octavia, his present wife, and then by taking Poppea, the wife of his favourite Otho, a woman more celebrated for her beauty than her virtues. This was another grating circumstance to Agrippina, who vainly used all her interest to disgrace Poppea, and reinstate herself in her son's lost favour. Historians assert, that she even offered to satisfy his passion herself by an incestuous compliance; and that, had not Seneca interposed, the son would have joined in the mother's crime. This, however, does not seem probable, since we find Poppea victorious, soon after, in the contention of interests; and at last impelling Nero to parricide, to satisfy her revenge. She began her arts by urging him to divorce his present wife, and marry herself: she reproached him as a pupil, who wanted not only power over others, but liberty to direct himself. She insinuated the dangerous designs of Agrippina; and, by degrees, accustomed his mind to reflect on parricide without horror. His cruelties against his mother began rather by various circumstances of petty malice than by any downright injury. He encouraged several persons to tease her with litigious suits; and employed some of the meanest of the people to sing satirical songs against her, under her windows: but, at last, finding these ineffectual in breaking her spirit, he resolved on putting her to death. His first attempt was by poison; but this, though twice repeated, proved ineffectual, as she had fortified her constitution against it by antidotes. This failing, a ship was contrived in so artificial a manner as to fall to pieces in the water; on board of which she was invited to sail to the coasts of Calabria. However, this plot was as ineffectual as the former: the mariners, not being apprised of the secret, disturbed each other's operations; so that the ship not sinking as readily as was expected, Agrippina found means to continue swimming, till she was taken up by some trading vessels passing that way. Nero finding all his machinations were discovered, resolved to throw off the mask, and put her openly to death, without further delay. He therefore caused a report to be spread, that she had conspired against him, and that a poniard was dropped at his feet by one who pretended a command from Agrippina to assassinate him. In consequence of this, he applied to his governors Seneca and Burrhus, for their advice how to act, and their assistance in ridding him of his fears. Things were now come to such a crisis, that no middle way could be taken; and either Nero or Agrippina was to fall. Seneca, therefore, kept a profound silence; while Burrhus, with more resolution, refused to be perpetrator of so great a crime; alleging, that the army was entirely devoted to all the descendants of Cæsar, and would never be brought to imbrue their hands in the blood of any of his family. In this embarrassment, Anicetus, the contriver of the ship above mentioned, offered his services; which Nero accepted with the greatest joy, crying out, "That then was the first moment he ever found himself an emperor." This freedman, therefore, taking with him a body of soldiers, surrounded the house of Agrippina, and then forced open the doors. The executioners having dispatched her with several wounds, left her dead on the couch, and went to inform Nero of what they had done. Some historians say, that Nero came immediately to view the body; that he continued to gaze upon it with pleasure, and ended his horrid survey, by coolly observing, that he never thought his mother had been so handsome — However

303 Causes his mother to be murdered.

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However this be, he vindicated his conduct next day to the senate; who not only excused, but applauded his impiety.

304 Folly and meanness of Nero.

All the bounds of virtue being thus broken down, Nero now gave a loose to his appetites, that were not only sordid but inhuman. There seemed an odd contrast in his disposition; for while he practised cruelties which were sufficient to make the mind shudder with horror, he was fond of those amusing arts that soften and refine the heart. He was particularly addicted, even from childhood, to music, and not totally ignorant of poetry. But chariot-driving was his favourite pursuit. He never missed the circus, when chariot-races were to be exhibited there; appearing at first privately, and soon after publicly; till at last, his passion increasing by indulgence, he was not content with being merely a spectator, but resolved to become one of the principal performers. His governors, however, did all in their power to restrain this perverted ambition; but finding him resolute, they inclosed a space of ground in the valley of the Vatican, where he first exhibited only to some chosen spectators, but shortly after invited the whole town. The praises of his flattering subjects only stimulated him still more to these unbecoming pursuits; so that he now resolved to assume a new character, and to appear as a singer upon the stage.

His passion for music, as was observed, was no less natural to him than the former; but as it was less manly, so he endeavoured to defend it by the example of some of the most celebrated men, who practised it with the same fondness. He had been instructed in the principles of this art from his childhood; and upon his advancement to the empire, he had put himself under the most celebrated masters. He patiently submitted to their instructions, and used all those methods which singers practise, either to mend the voice, or improve its volubility. Yet, notwithstanding all his assiduity, his voice was but a wretched one, being both feeble and unpleasant. However, he was resolved to produce it to the public, such as it was; for flattery, he knew, would supply every deficiency. His first public appearance was at games of his own institution, called *juveniles*; where he advanced upon the stage, tuning his instrument to his voice with great appearance of skill. A group of tribunes and centurions attended behind him; while his old governor Burrhus stood by his hopeful pupil, with indignation in his countenance, and praises on his lips.

He was desirous also of becoming a poet: but he was unwilling to undergo the pain of study, which a proficiency in that art requires; he was desirous of being a poet ready made. For this purpose, he got together several persons, who were considered as great wits at court, though but very little known as such to the public. These attended him with verses which they had composed at home, or which they blabbed out extemporaneously; and the whole of their compositions being tacked together, by his direction, was called a *poem*. Nor was he without his philosophers also; he took a pleasure in hearing their debates after supper, but he heard them merely for his amusement.

Furnished with such talents as these for giving pleasure, he was resolved to make the tour of his empire, and give the most public display of his abilities wherever he came. The place of his first exhibition, upon leaving Rome, was Naples. The crowds there were so great, and the curiosity of the people so earnest in hearing him, that they did not perceive an earthquake that happened while he was singing. His desire of gaining the superiority over the other actors was truly ridiculous: he made interest with his judges, reviled his competitors, formed private factions to support him, all in imitation of those who got their livelihood upon the stage. While he continued to perform, no man was permitted to depart from the theatre, upon any pretence whatsoever. Some were so fatigued with hearing him, that they leaped privately from the walls, or pretended to fall into fainting fits, in order to be carried out. Nay, it is said, that several women were delivered in the theatre. Soldiers were placed in several parts to observe the looks and gestures of the spectators, either to direct them where to point their applause, or restrain their displeasure. An old senator, named *Vespasian*, afterwards emperor, happening to fall asleep upon one of these occasions, very narrowly escaped with his life.

After being fatigued with the praises of his countrymen, Nero resolved upon going over into Greece, to receive new theatrical honours. The occasion was this. The cities of Greece had made a law to send him the crowns from all the games; and deputies were accordingly dispatched with this (to him) important embassy. As he one day entertained them at his table in the most sumptuous manner, and conversed with them with the utmost familiarity, they entreated to hear him sing. Upon his complying, the artful Greeks testified all the marks of ecstasy and rapture. Applauses so warm were peculiarly pleasing to Nero: he could not refrain from crying out, That the Greeks alone were worthy to hear him; and accordingly prepared without delay to go into Greece, where he spent the whole year ensuing. In this journey, his retinue resembled an army in number; but it was only composed of singers, dancers, taylors, and other attendants upon the theatre. He passed over all Greece, and exhibited at all their games, which he ordered to be celebrated in one year. At the Olympic games he resolved to show the people something extraordinary; wherefore, he drove a chariot with 10 horses; but being unable to sustain the violence of the motion, he was driven from his seat. The spectators, however, gave their unanimous applause, and he was crowned as conqueror. In this manner he obtained the prize at the Isthmian, Pythian, and Nemean games. The Greeks were not sparing of their crowns; he obtained 1800 of them. An unfortunate singer happened to oppose him on one of these occasions, and exerted all the powers of his art, which, it appears, were prodigious. But he seems to have been a better singer than a politician; for Nero ordered him to be killed on the spot. Upon his return from Greece, he entered Naples, through a breach in the walls of the city, as was customary with those who were conquerors in the Olympic games. But all the splendour of his return was reserved for his entry into Rome. There he appeared seated in the chariot of Augustus, dressed in robes of purple, and crowned with wild olive, which was the Olympic garland. He bore in his hand the Pythian crown, and had 1100 more carried before him.—Beside him sat one Diodorus, a musician; and behind him followed a band of singers, as numerous as a legion

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gion, who sung in honour of his victories. The senate, the knights, and the people, attended this puerile pageant, filling the air with their acclamations. The whole city was illuminated, every street smoked with incense; wherever he passed, victims were slain; the pavement was strewed with saffron, while garlands of flowers, ribbons, fowls, and pasties, (for so we are told), were showered down upon him from the windows as he passed along. So many honours only inflamed his desire of acquiring new; he at last began to take lessons in wrestling; willing to imitate Hercules in strength, as he had rivalled Apollo in activity. He also caused a lion of pasteboard to be made with great art, against which he undauntedly appeared in the theatre, and struck it down with a blow of his club.

305 Burning of Rome.

But his cruelties even outdid all his other extravagancies, a complete list of which would exceed the limits of the present article. He was often heard to observe, that he had rather be hated than loved. When one happened to say in his presence, That the world might be burned when he was dead: "Nay," replied Nero, "let it be burnt while I am alive." In fact, a great part of the city of Rome was consumed by fire shortly after. This remarkable conflagration took place in the 11th year of Nero's reign. The fire began among certain shops, in which were kept such goods as were proper to feed it; and spread every way with such amazing rapidity, that its havock was felt in distant streets, before any measures to stop it could be tried. Besides an infinite number of common houses, all the noble monuments of antiquity, all the stately palaces, temples, porticoes, with goods, riches, furniture, and merchandise, to an immense value, were devoured by the flames, which raged first in the low regions of the city, and then mounted to the higher with such terrible violence and impetuosity, as to frustrate all relief. The shrieks of the women, the various efforts of some endeavouring to save the young and tender, of others attempting to assist the aged and infirm, and the hurry of such as strove only to provide for themselves, occasioned a mutual interruption and universal confusion. Many, while they chiefly regarded the danger that pursued them from behind, found themselves suddenly involved in the flames before and on every side. If they escaped into the quarters adjoining, or into the parts quite remote, there too they met with the devouring flames. At last, not knowing whither to fly, nor where to seek sanctuary, they abandoned the city, and repaired to the open fields. Some, out of despair for the loss of their whole substance, others, through tenderness for their children and relations, whom they had not been able to snatch from the flames, suffered themselves to perish in them, though they might easily have found means to escape. No man dared to stop the progress of the fire, there being many who had no other business but to prevent with repeated menaces all attempts of that nature: nay, some were, in the face of the public, seen to throw lighted fire-brands into the houses, loudly declaring that they were authorised so to do; but whether this was only a device to plunder the more freely, or in reality they had such orders, was never certainly known.

Nero, who was then at Antium, did not offer to return to the city, till he heard that the flames were advancing to his palace, which, after his arrival, was, in spite of all opposition, burnt down to the ground, with all the houses adjoining to it. However, Nero, affecting compassion for the multitude, thus vagabond and bereft of their dwellings, laid open the field of Mars, and all the great edifices erected there by Agrippa, and even his own gardens. He likewise caused tabernacles to be reared in haste for the reception of the forlorn populace; from Ostia, too, and the neighbouring cities, were brought, by his orders, all sorts of furniture and necessaries, and the price of corn was considerably lessened. But these bounties, however generous and popular, were bestowed in vain, because a report was spread abroad, that, during the time of this general conflagration, he mounted his domestic stage, and sung the destruction of Troy, comparing the present desolation to the celebrated calamities of antiquity. At length, on the sixth day, the fury of the flames was stopped at the foot of Mount Æsquiline, by levelling with the ground an infinite number of buildings: so that the fire found nothing to encounter but the open fields and empty air.

But scarce had the late alarm ceased, when the fire broke out anew with fresh rage, but in places more wide and spacious; whence fewer persons were destroyed, but more temples and public porticoes were overthrown. As this second conflagration broke out in certain buildings belonging to Tigellinus, they were both generally ascribed to Nero: and it was conjectured, that, by destroying the old city, he aimed at the glory of building a new one, and calling it by his name. Of the fourteen quarters into which Rome was divided, four remained entire, three were laid in ashes, and, in the seven others, there remained here and there a few houses, miserably shattered, and half consumed. Among the many ancient and stately edifices, which the rage of the flames utterly consumed, Tacitus reckons the temple dedicated by Servius Tullius to the Moon; the temple and great altar consecrated by Evander to Hercules; the chapel vowed by Romulus to Jupiter Stator; the court of Numa, with the temple of Vesta; and in it the tutelar gods peculiar to the Romans. In the same fate were involved the inestimable treasures acquired by so many victories, the wonderful works of the best painters and sculptors of Greece, and, what is still more to be lamented, the ancient writings of the celebrated authors, till then preserved perfectly entire. It was observed, that the fire began the same day on which the Gauls, having formerly taken the city, burnt it to the ground.

306 Nero's golden palace.

Upon the ruins of the demolished city, Nero founded a palace, which he called his *golden house;* though it was not so much admired on account of an immense profusion of gold, precious stones, and other inestimable ornaments, as for its vast extent, containing spacious fields, large wildernesses, artificial lakes, thick woods, orchards, vineyards, hills, groves, &c. The entrance of this stately edifice was wide enough to receive a colossus, representing Nero, 120 feet high: the galleries, which consisted of three rows of tall pillars, were each a full mile in length; the lakes were encompassed with magnificent buildings, in the manner of cities; and the woods stocked with all manner of wild beasts. The house itself was tiled with gold: the walls were covered with the same metal and richly adorned with precious stones and mother-of-pearl, which in those days was valued above gold: the timber-work and ceil-

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ings of the rooms were inlaid with gold and ivory: the roof of one of the banqueting-rooms resembled the firmament both in its figure and motion, turning incessantly about night and day, and showering all sorts of sweet waters. When this magnificent structure was finished, Nero approved of it only so far as to say, that *at length he began to lodge like a man.* Pliny tells us, that this palace extended quite round the city. Nero, it seems, did not finish it; for the first order Otho signed was, as we read in Suetonius, for fifty millions of sesterces to be employed in perfecting the golden palace which Nero had begun.

307 Undertakes to cut a canal from Avernus to the Tiber.

The projectors of the plan were Severus and Celer, two bold and enterprising men, who soon after put the emperor upon a still more expensive and arduous undertaking, namely, that of cutting a canal through hard rocks and steep mountains, from the lake Avernus to the mouth of the Tiber, 160 miles in length, and of such breadth that two galleys of five ranks of oars might easily pass abreast. His view in this was to open a communication between Rome and Campania, free from the troubles and dangers of the sea; for this very year, a great number of vessels laden with corn were shipwrecked at Misenum, the pilots choosing rather to venture out in a violent storm, than not to arrive at the time they were expected by Nero. For the executing of this great undertaking, the emperor ordered the prisoners from all parts to be transported into Italy; and such as were convicted, whatever their crimes were, to be condemned only to his works. Nero, who undertook nothing with more ardour and readiness than what was deemed impossible, expended incredible sums in this rash undertaking, and exerted all his might to cut through the mountains adjoining to the lake Avernus; but, not being able to remove by art the obstacles of nature, he was in the end obliged to drop the enterprise.

308 Rome rebuilt.

The ground that was not taken up by the foundations of Nero's own palace, he assigned for houses, which were not placed, as after the burning of the city by the Gauls, at random, and without order; but the streets were laid out regularly, spacious and straight; the edifices restrained to a certain height, perhaps of 70 feet, according to the plan of Augustus; the courts were widened; and to all the great houses which stood by themselves, and were called *isles*, large porticoes were added, which Nero engaged to raise at his own expence, and to deliver to each proprietor the squares about them clear from all rubbish. He likewise promised rewards according to every man's rank and substance; and fixed a day for the performance of his promise, on condition that against that day their several houses and palaces were finished. He moreover made the following wise regulations to obviate such a dreadful calamity for the future; to wit, That the new buildings should be raised to a certain height without timber; that they should be arched with stone from the quarries of Gabii and Alba, which were proof against fire; that over the common springs, which were diverted by private men for their own uses, overseers should be placed to prevent that abuse; that every citizen should have ready in his house some machine proper to extinguish the fire; that no wall should be common to two houses, but every house be inclosed within its own peculiar walls, &c. Thus the city in a short time rose out of its ashes with new lustre, and more beautiful than ever. However, some believed, that the ancient form was more conducive to health, the rays of the sun being hardly felt on account of the narrowness of the streets, and the height of the buildings, whereas now there was no shelter against the scorching heat. We are told, that Nero designed to extend the walls to Ostia, and to bring from thence by a canal the sea, into the city.

The emperor used every art to throw the odium of this conflagration upon the Christians, who were at that time gaining ground in Rome. Nothing could be more dreadful than the persecution raised against them upon this false accusation, of which an account is given under the article *Ecclesiastical* HISTORY. Hitherto, however, the citizens of Rome seemed comparatively exempted from his cruelties, which chiefly fell upon strangers and his nearest connections; but a conspiracy formed against him by Piso, a man of great power and integrity, which was prematurely discovered, opened a new train of suspicions that destroyed many of the principal families in Rome. This conspiracy, in which several of the chief men of the city were concerned, was first discovered by the indiscreet zeal of a woman named *Epicharis*, who, by some means now unknown, had been led into the plot, which she revealed to Volusius, a tribune, in order to prevail upon him to be an accomplice. Volusius, instead of coming into her design, went and discovered what he had learned to Nero, who immediately put Epicharis in prison. Soon after, a freedman belonging to Scænius, one of the accomplices, made a farther discovery. The conspirators were examined apart; and as their testimonies differed, they were put to the torture. Natalis was the first who made a confession of his own guilt and that of many others. Scænius gave a list of the conspirators still more ample. Lucan, the poet, was amongst the number; and he, like the rest, in order to save himself, still farther enlarged the catalogue, naming, among others, Attilia, his own mother. Epicharis was now, therefore, again called upon and put to the torture; but her fortitude was proof against all the tyrant's cruelty; neither scourging nor burning, nor all the malicious methods used by the executioners, could extort the smallest confession. She was therefore remanded to prison, with orders to have her tortures renewed the day following: In the mean time, she found an opportunity of strangling herself with her handkerchief, by hanging it against the back of her chair. On the discoveries already made, Piso, Lateranus, Fennius Rufus, Subrius Flavius, Sulpicius, Asper, Vestinus the consul, and numberless others, were all executed without mercy. But the two most remarkable personages who fell on this occasion were Seneca the philosopher, and Lucan the poet, who was his nephew. It is not certainly known whether Seneca was really concerned in this conspiracy or not.—This great man had for some time perceived the outrageous conduct of his pupil; and, finding himself incapable of controuling his savage disposition, had retired from court into solitude and privacy. However, his retreat did not now protect him; for Nero, either having real testimony against him, or else hating him for his virtues, sent a tribune to inform him that he was

309 The conspiracy of Piso

suspected

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suspected as an accomplice, and soon after sent him an order to put himself to death, with which he complied.

In this manner was the whole city filled with slaughter, and frightful instances of treachery. No master was secure from the vengeance of his slaves, nor even parents from the baser attempts of their children. Not only throughout Rome, but the whole country round, bodies of soldiers were seen in pursuit of the suspected and the guilty. Whole crowds of wretches loaded with chains were led every day to the gates of the palace, to wait their sentence from the tyrant's own lips. He always presided at the torture in person, attended by Tigellinus, captain of the guard, who, from being the most abandoned man in Rome, was now become his principal minister and favourite.

Nor were the Roman provinces in a better situation than the capital city The example of the tyrant seemed to influence his governors, who gave instances not only of their rapacity, but of their cruelty, in every part of the empire. In the seventh year of his reign, the Britons revolted, under the conduct of their queen Boadicea *; but were at last so completely defeated, that ever after, during the continuance of the Romans among them, they lost not only all hopes, but even all desire of freedom.

* See *England*.

310 Success against the Parthians, &c.

A war also was carried on against the Parthians for the greatest part of this reign, conducted by Corbulo; who, after many successes, had dispossessed Tiridates, and settled Tigranes in Armenia in his room. Tiridates, however, was soon after restored by an invasion of the Parthians into that country; but being once more opposed by Corbulo, the Romans and Parthians came to an agreement, that Tiridates should continue to govern Armenia, upon condition that he should lay down his crown at the feet of the emperor's statue, and receive it as coming from him; all which he shortly after performed. A ceremony, however, which Nero desired to have repeated to his person; wherefore by letters and promises he invited Tiridates to Rome, granting him the most magnificent supplies for his journey. Nero attended his arrival with very sumptuous preparations. He received him seated on a throne, accompanied by the senate standing round him, and the whole army drawn out with all imaginable splendour.—Tiridates ascended the throne with great reverence; and approaching the emperor fell down at his feet, and in the most abject terms acknowledged himself his slave. Nero raised him up, telling him with equal arrogance, that he did well, and that by his submission he had gained a kingdom which his ancestors could never acquire by their arms. He then placed the crown on his head, and, after the most costly ceremonies and entertainments, he was sent back to Armenia, with incredible sums of money to defray the expences of his return.

311 Revolt of the Jews.

In the 12th year of this emperor's reign, the Jews also revolted, having been severely oppressed by the Roman governor. It is said that Florus, in particular, was arrived at that degree of tyranny, that by public proclamation he gave permission to plunder the country, provided he received half the spoil. These oppressions drew such a train of calamities after them, that the sufferings of all other nations were slight in comparison to what this devoted people afterwards endured, as is related under the article JEWS. In the mean time, Nero proceeded in his cruelties at Rome with unabated severity.

The valiant Corbulo, who had gained so many victories over the Parthians, could not escape his fury. Nor did the empress Poppæa herself escape; whom, in a fit of anger, he kicked when she was pregnant, by which she miscarried and died. At last the Romans began to grow weary of such a monster, and there appeared a general revolution in all the provinces.

312 Revolt of Vindex in Gaul.

The first appeared in Gaul, under Julius Vindex, who commanded the legions there, and publicly protested against the tyrannical government of Nero. He appeared to have no other motive for this revolt than that of freeing the world from an oppressor; for when it was told him that Nero had set a reward upon his head of 10,000,000 of sesterces, he made this gallant answer, "Whoever brings me Nero's head, shall, if he pleases, have mine." But still more to show that he was not actuated by motives of private ambition, he proclaimed Sergius Galba emperor, and invited him to join in the revolt. Galba, who was at that time governor of Spain, was equally remarkable for his wisdom in peace and his courage in war. But as all talents under corrupt princes are dangerous, he for some years had seemed willing to court obscurity, giving himself up to an inactive life, and avoiding all opportunities of signalizing his valour. He now therefore, either through the caution attending old age, or from a total want of ambition, appeared little inclined to join with Vindex, and continued for some time to deliberate with his friends on the part he should take.

In the mean time, Nero, who had been apprised of the proceedings against him in Gaul, appeared totally regardless of the danger, privately flattering himself that the suppression of this revolt would give him an opportunity for fresh confiscations. But the actual revolt of Galba, the news of which arrived soon after, affected him in a very different manner. The reputation of that general was such, that from the moment he declared against him, Nero considered himself as undone. He received the account as he was at supper; and instantly, struck with terror, overturned the table with his foot, breaking two crystal vases of immense value. He then fell into a swoon; from which when he recovered, he tore his clothes, and struck his head, crying out "that he was utterly undone." He then began to meditate slaughters more extensive than he had yet committed. He resolved to massacre all the governors of provinces, to destroy all exiles, and to murder all the Gauls in Rome, as a punishment for the treachery of their countrymen. In short, in the wildness of his rage, he thought of poisoning the whole senate, of burning the city, and turning the lions kept for the purposes of the theatre out upon the people. These designs being impracticable, he resolved at last to face the danger in person. But his very preparations served to mark the infatuation of his mind. His principal care was, to provide waggons for the convenient carriage of his musical instruments; and to dress out his concubines like Amazons, with whom he intended to face the enemy. He also made a resolution, that if he came off with safety and empire, he would appear again upon the theatre with the lute, and would equip himself as a pantomime.

313 and of Galba.

While Nero was thus frivolously employed, the revolt became

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became general. Not only the armies in Spain and Gaul, but also the legions in Germany, Africa, and Lusitania, declared against him. Virginius Rufus alone, who commanded an army on the Upper Rhine, for a while continued in suspense; during which his forces, without his permission, falling upon the Gauls, routed them with great slaughter, and Vindex slew himself. But this ill success no way advanced the interests of Nero; he was so detested by the whole empire, that he could find none of the armies faithful to him, however they might disagree with each other. He therefore called for Locusta to furnish him with poison; and, thus prepared for the worst, he retired to the Servilian gardens, with a resolution of flying into Egypt. He accordingly dispatched the freedmen, in whom he had the most confidence, to prepare a fleet at Ostia; and in the meanwhile sounded, in person, the tribunes and centurions of the guard, to know if they were willing to share his fortunes. But they all excused themselves, under divers pretexts. One of them had the boldness to answer him by a part of a line from Virgil: *Usque adeone miserum est mori?* "Is death then such a misfortune?" Thus destitute of every resource, all the expedients that cowardice, revenge, or terror could produce, took place in his mind by turns. He at one time resolved to take refuge among the Parthians; at another, to deliver himself up to the mercy of the insurgents; one while he determined to mount the rostrum, to ask pardon for what was past, and to conclude with promises of amendment for the future. With these gloomy deliberations he went to bed; but waking about midnight, he was surprised to find his guards had left him. The prætorian soldiers, in fact, having been corrupted by their commander, had retired to their camp, and proclaimed Galba emperor. Nero immediately sent for his friends to deliberate upon his present exigence; but his friends also forsook him. He went in person from house to house; but all the doors were shut against him, and none were found to answer his inquiries. While he was pursuing this inquiry, his very domestics followed the general defection; and having plundered his apartment escaped different ways. Being now reduced to desperation, he desired that one of his favourite gladiators might come and dispatch him: but even in this request there was none found to obey. "Alas! (cried he) have I neither friend nor enemy?" And then running desperately forth, he seemed resolved to plunge headlong into the Tiber. But just then his courage beginning to fail him, he made a sudden stop, as if willing to recollect his reason; and asked for some secret place, where he might re-assume his courage, and meet death with becoming fortitude. In this distress, Phaon, one of his freedmen, offered him his country-house, at about four miles distant, where he might for some time remain concealed. Nero accepted his offer; and, half-dressed as he was, with his head covered, and hiding his face with a handkerchief, he mounted on horseback, attended by four of his domestics, of whom the wretched Sporus was one. His journey, though quite short, was crowded with adventures. Round him he heard nothing but confused noises from the camp, and the cries of the soldiers, imprecating a thousand evils upon his head. A passenger, meeting him on the way, cried, "There go men in pursuit of Nero.' Another asked him, if there was any news of Nero in the city? His horse taking fright at a dead body that lay near the road, he dropped his handerchief; and a soldier that was near, addressed him by name. He now therefore quitted his horse, and forsaking the highway, entered a thicket that led towards the back part of Phaon's house, through which he crept, making the best of his way among the reeds and brambles, with which the place was overgrown. When he was arrived at the back part of the house, while he was waiting till there should be a breach made in the wall, he took up some water in the hollow of his hands from a pool to drink; saying, "To this liquor is Nero reduced." When the hole was made large enough to admit him, he crept in upon all-fours, and took a short repose upon a wretched pallet, that had been prepared for his reception. Being pressed by hunger, he demanded somewhat to eat: they brought him a piece of brown bread, which he refused; but he drank a little water. During this interval, the senate finding the prætorian guards had taken part with Galba, declared him emperor, and condemned Nero to die *more majorum*; that is, "according to the rigour of the ancient laws." These dreadful tidings were quickly brought by one of Phaon's slaves from the city, while Nero yet continued lingering between his hopes and his fears. When he was told of the resolution of the senate against him, he asked the messenger what he meant by being punished "according to the rigour of the ancient laws?" To this he was answered, that the criminal was to be stripped naked, his head was to be fixed in a pillory, and in that posture he was to be scourged to death. Nero was so terrified at this, that he seized two poniards which he had brought with him, and examining their points, returned them to their sheaths, saying, that the fatal moment was not yet arrived. However, he had little time to spare; for the soldiers who had been sent in pursuit of him were just then approaching the house: wherefore hearing the sound of the horses feet, he set a dagger to his throat, with which, by the assistance of Epaphroditus, his freedman and secretary, he gave himself a mortal wound. He was not quite dead when one of the centurions entering the room, and pretending he came to his relief, attempted to stop the blood with his cloak. But Nero, regarding him with a stern countenance, said, "It is now too late. Is this your fidelity?"—Upon which, with his eyes fixed, and frightfully staring, he expired, in the 32d year of his age, and the 14th of his reign.

314 Miserable situation of Nero.

315 His death.

316 Uneasiness of Galba the beginning of his reign.

Galba was 72 years old when he was declared emperor, and was then in Spain with his legions. However, he soon found, that his being raised to the throne was but an inlet to new disquietudes. His first embarrassment arose from a disorder in his own army; for upon his approaching the camp, one of the wings of horse repenting of their choice, prepared to revolt, and he found it no easy matter to reconcile them to their duty. He also narrowly escaped assassination from some slaves, who were presented to him by one of Nero's freedmen with that intent. The death of Vindex also served to add not a little to his disquietudes; so that upon his very entrance into the empire he had some thoughts of putting an end to his own life. But hearing from Rome that Nero was dead, and the empire transferred to him, he immediately assumed the title and ensigns of command. In his journey towards Rome he

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he was met by Rufus Virginius, who, finding the senate had decreed him the government, came to yield him obedience. This general had more than once refused the empire himself, which was offered him by his soldiers; alleging, that the senate alone had the disposal of it, and from them only he would accept the honour.

317 Faults in his administration.

Galba having been brought to the empire by means of his army, was at the same time willing to suppress their power to commit any future disturbance. His first approach to Rome was attended with one of those rigorous strokes of justice which ought rather to be denominated *cruelty* than any thing else. A body of mariners, whom Nero had taken from the oar and enlisted among the legions, went to meet Galba, three miles from the city, and with loud importunities demanded a confirmation of what his predecessor had done in their favour. Galba, who was rigidly attached to the ancient discipline, deferred their request to another time. But they, considering this delay as equivalent to an absolute denial, insisted in a very disrespectful manner; and some of them even had recourse to arms: whereupon Galba ordered a body of horse attending him to ride in among them, and thus killed 7000 of them; but not content with this punishment, he afterwards ordered them to be decimated. Their insolence demanded correction; but such extensive punishments deviated into cruelty. His next step to curb the insolence of the soldiers, was his discharging the German cohort, which had been established by the former emperors as a guard to their persons. Those he sent home to their own country unrewarded, pretending they were disaffected to his person. He seemed to have two other objects also in view; namely, to punish those vices which had come to an enormous height in the last reign, with the strictest severity; and to replenish the exchequer, which had been quite drained by the prodigality of his predecessors. But these attempts only brought on him the imputation of severity and avarice; for the state was too much corrupted to admit of such an immediate transition from vice to virtue. The people had long been maintained in sloth and luxury by the prodigality of the former emperors, and could not think of being obliged to seek for new means of subsistence, and to retrench their superfluities. They began, therefore, to satirize the old man, and turn the simplicity of his manners into ridicule. Among the marks of avarice recorded of him, he is said to have groaned upon having an expensive soup served up to his table; he is said to have presented to his steward, for his fidelity, a plate of beans; a famous player upon the flute named *Canus*, having greatly delighted him, it is reported, that he drew out his purse, and gave him five-pence, telling him, that it was private and not public money. By such ill-judged frugalities, at such a time, Galba began to lose his popularity; and he, who before his accession was esteemed by all, being become emperor, was considered with ridicule and contempt. But there are some circumstances alleged against him, less equivocal than those trifling ones already mentioned. Shortly after his coming to Rome, the people were presented with a most grateful spectacle, which was that of Locusta, Elius, Policletus, Petronius, and Petinus, all the bloody ministers of Nero's cruelty, drawn in fetters, through the city, and publicly executed. But Tigellinus, who had been more active than all the rest, was not there. The crafty villain had taken care for his own safety, by the largeness of his bribes: and though the people cried out for vengeance against him at the theatre and at the circus, yet the emperor granted him his life and pardon. Helotus the eunuch, also, who had been the instrument of poisoning Claudius, escaped, and owed his safety to the proper application of his wealth. Thus, by the inequality of his conduct, he became despicable to his subjects. At one time shewing himself severe and frugal, at another remiss and prodigal; condemning some illustrious persons without any hearing, and pardoning others though guilty: in short, nothing was done but by the mediation of his favourites; all offices were venal, and all punishments redeemable by money.

Affairs were in this unsettled posture at Rome, when the provinces were yet in a worse condition. The success of the army in Spain in choosing an emperor induced the legions in the other parts to wish for a similar opportunity. Accordingly, many seditions were kindled, and several factions promoted in different parts of the empire, but particularly in Germany. There were then in that province two Roman armies; the one which had lately attempted to make Rufus Virginius emperor, as has been already mentioned, and which was commanded by his lieutenant; the other commanded by Vitellius, who long had an ambition to obtain the empire for himself. The former of these armies despising their present general, and considering themselves as suspected by the emperor for having been the last to acknowledge his title, resolved now to be foremost in denying it. Accordingly, when they were summoned to take the oaths of homage and fidelity, they refused to acknowledge any other commands but those of the senate. This refusal they backed by a message of the prætorian bands, importing, that they were resolved not to acquiesce in the election of an emperor created in Spain, and desiring that the senate should proceed to a new choice.

Galba being informed of this commotion, was sensible, that, besides his age, he was less respected for want of an heir. He resolved therefore to put what he had formerly designed in execution, and to adopt some person whose virtues might deserve such advancement, and protect his declining age from danger. His favourites understanding his determination, instantly resolved to give him an heir of their own choosing; so that there arose a great contention among them upon this occasion. Otho made warm application for himself; alleging the great services he had done the emperor, as being the first man of note who came to his assistance when he had declared against Nero. However, Galba, being fully resolved to consult the public good alone, rejected his suit; and on a day appointed ordered Piso Licinianus to attend him. The character given by historians of Piso is, that he was every way worthy of the honour designed him. He was no way related to Galba; and had no other interest but merit to recommend him to his favour. Taking this youth therefore by the hand, in the presence of his friends, he adopted him to succeed in the empire, giving him the most wholesome lessons for guiding his future conduct. Piso's conduct showed that he was highly deserving this distinction: in all his deportment there appeared such modesty, firmness, and equality of mind,

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mind, as bespoke him rather capable of discharging, than ambitious of obtaining, his present dignity. But the army and the senate did not seem equally disinterested upon this occasion; they had been so long used to bribery and corruption, that they could now bear no emperor who was not in a capacity of satisfying their avarice. The adoption therefore of Piso was but coldly received; for his virtues were no recommendation in a nation of universal depravity.

318 Otho declared emperor.

Otho now finding his hopes of adoption wholly frustrated, and still further stimulated by the immense load of debt which he had contracted by his riotous way of living, resolved upon obtaining the empire by force, since he could not by peaceable succession. In fact, his circumstances were so very desperate, that he was heard to say, that it was equal to him whether he fell by his enemies in the field or by his creditors in the city. He therefore raised a moderate sum of money, by selling his interest to a person who wanted a place; and with this bribed two subaltern officers in the prætorian bands supplying the deficiency of largesses by promises and plausible pretences. Having in this manner, in less than eight days, corrupted the fidelity of the soldiers, he stole secretly from the emperor while he was sacrificing; and assembling the soldiers in a short speech urged the cruelties and avarice of Galba. Finding these his invectives received with universal shouts by the whole army, he entirely threw off the mask, and avowed his intentions of dethroning him. The soldiers being ripe for sedition, immediately seconded his views: taking Otho upon their shoulders, they instantly proclaimed him emperor; and, to strike the citizens with terror, carried him with their swords drawn into the camp.

319 Galba murdered.

Galba, in the mean time, being informed of the revolt of the army, seemed utterly confounded, and in want of sufficient resolution to face an event which he should have long foreseen. In this manner the poor old man continued wavering and doubtful; till, at last, being deluded by a false report of Otho's being slain, he rode into the forum in complete armour, attended by many of his followers. Just at the same instant a body of horse sent from the camp to destroy him entered on the opposite side, and each party prepared for the encounter. For some time hostilities were suspended on each side; Galba, confused and irresolute, and his antagonists struck with horror at the baseness of their enterprise. At length, however, finding the emperor in some measure deserted by his adherents, they rushed in upon him, trampling under foot the crowds of people that then filled the forum. Galba seeing them approach, seemed to recollect all his former fortitude; and bending his head forward, bid the assassins strike it off if it were for the good of the people. This was quickly performed; and his head being set upon the point of a lance, was presented to Otho, who ordered it to be contemptuously carried round the camp; his body remaining exposed in the streets till it was buried by one of his slaves. He died in the 73d year of his age, after a short reign of seven months.

No sooner was Galba thus murdered, than the senate and people ran in crowds to the camp, contending who should be foremost in extolling the virtues of the new emperor, and depressing the character of him they had so unjustly destroyed. Each laboured to excel the rest in his instances of homage; and the less his affections were for him, the more did he indulge all the vehemence of exaggerated praise. Otho finding himself surrounded by congratulating multitudes, immediately repaired to the senate, where he received the titles usually given to the emperors; and from thence returned to the palace, seemingly resolved to reform his life, and assume manners becoming the greatness of his station.

He began his reign by a signal instance of clemency, by pardoning Marius Celsus, who had been highly favoured by Galba; and not contented with barely forgiving, he advanced him to the highest honours; asserting, that "fidelity deserved every reward." This act of clemency was followed by another of justice, equally agreeable to the people. Tigellinus, Nero's favourite, he who had been the promoter of all his cruelties, was now put to death; and all such as had been unjustly banished, or stripped, at his instigation, during Nero's reign, were restored to their country and fortunes.

320 Vitellius revolts.

In the mean time, the legions in Lower Germany having been purchased by the large gifts and specious promises of Vitellius their general, were at length induced to proclaim him emperor; and regardless of the senate, declared that they had an equal right to appoint to that high station with the cohorts at Rome. The news of this conduct in the army soon spread consternation throughout Rome; but Otho was particularly struck with the account, as being apprehensive that nothing but the blood of his countrymen could decide a contest of which his own ambition only was the cause. He now therefore sought to come to an agreement with Vitellius; but this not succeeding, both sides began their preparations for war. News being received that Vitellius was upon his march to Italy, Otho departed from Rome with a vast army to oppose him. But though he was very powerful with regard to numbers, his men, being little used to war, could not be relied on He seemed by his behaviour sensible of the disproportion of his forces; and he is said to have been tortured with frightful dreams and the most uneasy apprehensions. It is also reported by some, that one night fetching many profound sighs in his sleep, his servants ran hastily to his bed-side, and found him stretched on the ground. He alleged he had seen the ghost of Galba, which had, in a threatening manner, beat and pushed him from the bed; and he afterwards used many expiations to appease it. However this be, he proceeded with a great show of courage till he arrived at the city of Brixellum, on the river Po, where he remained, sending his forces before him under the conduct of his generals Suetonius and Celsus, who made what haste they could to give the enemy battle. The army of Vitellius, which consisted of 70,000 men, was commanded by his generals Valens and Cecina, he himself remaining in Gaul in order to bring up the rest of his forces. Thus both sides hastened to meet each other with so much animosity and precipitation, that three considerable battles were fought in the space of three days. One near Placentia, another near Cremona, and a third at a place called *Castor*; in all which Otho had the advantage. But these successes were but of short lived continuance; for Valens and Cecina, who had hitherto acted separately, joining

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321 Otho defeated at Bedriacum.

joining their forces, and reinforcing their armies with fresh supplies, resolved to come to a general engagement. Otho, who by this time had joined his army at a little village called *Bedriacum*, finding the enemy, notwithstanding their late losses, inclined to come to a battle, resolved to call a council of war to determine upon the proper measures to be taken. His generals were of opinion to protract the war: but others, whose inexperience had given them confidence, declared, that nothing but a battle could relieve the miseries of the state; protesting that Fortune, and all the gods, with the divinity of the emperor himself, favoured the design, and would undoubtedly prosper the enterprise. In this advice Otho acquiesced: he had been for some time so uneasy under the war, that he seemed willing to exchange suspense for danger. However, he was so surrounded with flatterers, that he was prohibited from being personally present in the engagement, but prevailed upon to reserve himself for the fortune of the empire, and wait the event at Brixellum. The affairs of both armies being thus adjusted, they came to an engagement at Bedriacum; where, in the beginning, those on the side of Otho seemed to have the advantage. At length, the superior discipline of the legions of Vitellius turned the scale of victory. Otho's army fled in great confusion towards Bedriacum, being pursued with a miserable slaughter all the way.

322 Despairs and kills himself.

In the mean time, Otho waited for the news of the battle with great impatience, and seemed to tax his messengers with delay. The first account of his defeat was brought him by a common soldier, who had escaped from the field of battle. However, Otho, who was still surrounded by flatterers, was desired to give no credit to a base fugitive, who was guilty of falsehood only to cover his own cowardice. The soldier, however, still persisted in the veracity of his report; and, finding none inclined to believe him, immediately fell upon his sword, and expired at the emperor's feet. Otho was so much struck with the death of this man, that he cried out, that he would cause the ruin of no more such valiant and worthy soldiers, but would end the contest the shortest way; and therefore having exhorted his followers to submit to Vitellius, he put an end to his own life.

also ordered 150 of those who were most guilty to be put to death.

As he approached towards Rome, he passed through the towns with all imaginable splendour; his passage by water was in painted galleys, adorned with garlands of flowers, and profusely furnished with the greatest delicacies. In his journey there was neither order nor discipline among his soldiers; they plundered wherever they came with impunity; and he seemed no way displeased with the licentiousness of their behaviour.

Upon his arrival at Rome, he entered the city, not as a place he came to govern with justice, but as a town that became his own by the laws of conquest. He marched through the streets mounted on horseback, all in armour; the senate and people going before him, as if the captives of his late victory. He the next day made the senate a speech, in which he magnified his own actions, and promised them extraordinary advantages from his administration. He then harangued the people, who, being now long accustomed to flatter all in authority, highly applauded and blessed their new emperor.

326 His shameful gluttony, and other vices.

In the mean time, his soldiers being permitted to satiate themselves in the debaucheries of the city, grew totally unfit for war. The principal affairs of the state were managed by the lowest wretches. Vitellius, more abandoned than they, gave himself up to all kinds of luxury and profuseness; but gluttony was his favourite vice, so that he brought himself to a habit of vomiting, in order to renew his meals at pleasure. His entertainments, though seldom at his own cost, were prodigiously expensive; he frequently invited himself to the tables of his subjects, breakfasting with one, dining with another, and supping with a third, all in the same day. The most memorable of these entertainments was that made for him by his brother on his arrival at Rome. In this were served up 2000 several dishes of fish, and 7000 of fowl, of the most valuable kinds. But in one particular dish he seemed to have outdone all the former profusion of the most luxurious Romans. This dish which was of such magnitude as to be called the *shield of Minerva*, was filled with an olio made from the sounds of the fish called *scarri*, the brains of pheasants and woodcocks, the tongues of the most costly birds, and the spawn of lampreys brought from the Cas-

ants thought it was to pardon the unhappy creditor. Vitellius gave them soon to understand that it was merely to have the pleasure of feeding his eyes with his torments. Having condemned another to death, he executed his two sons with him, only for their presuming to intercede for their father. A Roman knight being dragged away to execution, and crying out that he had made the emperor his heir, Vitellius demanded to see the will, where finding himself joint heir with another, he ordered both to be executed, that he might enjoy the legacy without a partner.

By the continuance of such vices and cruelties as these he became odious to all mankind, and the astrologers began to prognosticate his ruin. A writing was set up in the forum to this effect: "We, in the name of the ancient Chaldeans, give Vitellius warning to depart this life by the kalends of October." Vitellius, on his part, received this information with terror, and ordered all the astrologers to be banished from Rome. An old woman having foretold, that if he survived his mother, he should reign many years in happiness and security, this gave him a desire of putting her to death; which he did, by refusing her sustenance, under the pretence of its being prejudicial to her health. But he soon saw the futility of relying upon such vain prognostications; for his soldiers, by their cruelty and rapine, having become insupportable to the inhabitants of Rome, the legions of the East, who had at first acquiesced in his dominion, began to revolt, and shortly after unanimously resolved to make Vespasian emperor.

327 Vespasian proclaimed emperor.

Vespasian, who was appointed commander against the rebellious Jews, had reduced most of their country, except Jerusalem, to subjection. The death of Nero, however, had at first interrupted the progress of his arms, and the succession of Galba gave a temporary check to his conquests, as he was obliged to send his son Titus to Rome, to receive that emperor's commands. Titus, however, was so long detained by contrary winds, that he received news of Galba's death before he set sail. He then resolved to continue neuter during the civil wars between Otho and Vitellius; and when the latter prevailed, he gave him his homage with reluctance. But being desirous of acquiring reputation, though he disliked the government, he determined to lay siege to Jerusalem, and actually made preparations for that great undertaking, when he was given to understand that Vitellius was detested by all ranks in the empire. These murmurings increased every day, while Vespasian secretly endeavoured to advance the discontents of the army. By these means they began at length to fix their eyes upon him as the person the most capable and willing to terminate the miseries of his country, and put a period to the injuries it suffered. Not only the legions under his command, but those in Mæsia and Pannonia, came to the same resolution, so that they declared themselves for Vespasian He was also without his own consent proclaimed emperor at Alexandria, the army there confirming it with extraordinary applause, and paying their accustomed homage. Still, however, Vespasian seemed to decline the honour done him; till at length his soldiers compelled him, with their threats of immediate death, to accept a title, which, in all probability, he wished to enjoy. He now, therefore, called a council of war: where it was resolved, that his son Titus should carry on the war against the Jews; and that Mutianus, one of his generals, should, with the greatest part of his legions, enter Italy; while Vespasian himself should levy forces in all parts of the east, in order to reinforce them in case of necessity.

During these preparations, Vitellius, though buried in sloth and luxury, was resolved to make an effort to defend the empire; wherefore his chief commanders, Valens and Cecina, were ordered to make all possible preparations to resist the invaders. The first army that entered Italy with an hostile intention was under the command of Antonius Primus, who was met by Cecina near Cremona. A battle was expected to ensue; but a negociation taking place, Cecina was prevailed upon to change sides, and declare for Vespasian. His army, however, quickly repented of what they had done; and imprisoning their general attacked Antonius, though without a leader. The engagement continued during the whole night: in the morning, after a short repast, both armies engaged a second time; when the soldiers of Antonius saluting the rising sun, according to custom, the Vitellians supposing that they had received new reinforcements, betook themselves to flight, with the loss of 30,000 men. Shortly after, freeing their general Cecina from prison, they prevailed upon him to intercede with the conquerors for pardon; which they obtained, though not without the most horrid barbarities committed upon Cremona, the city to which they had retired for shelter.

328 Vitellius defeated.

When Vitellius was informed of the defeat of his army, his former insolence was converted into an extreme of timidity and irresolution. At length he commanded Julius Priscus and Alphenus Varus, with some forces that were in readiness, to guard the passes of the Apennines, to prevent the enemy's march to Rome; reserving the principal body of his army to secure the city, under the command of his brother Lucius. But being persuaded to repair to his army in person, his presence only served to increase the contempt of his soldiers. He there appeared irresolute, and still luxurious, without council or conduct, ignorant of war, and demanding from others those instructions which it was his duty to give. After a short continuance in the camp, and understanding the revolt of his fleet, he returned once more to Rome: but every day only served to render his affairs still more desperate; till at last he made offers to Vespasian of resigning the empire, provided his life were granted, and a sufficient revenue for his support. In order to enforce his request, he issued from his palace in deep mourning with all his domestics weeping round him. He then went to offer the sword of justice to Cecilius, the consul; which he refusing, the abject emperor prepared to lay down the ensigns of the empire in the temple of Concord. But being interrupted by some, who cried out That he himself was Concord, he resolved, upon so weak an encouragement, still to maintain his power, and immediately prepared for his defence.

During this fluctuation of counsels, one Sabinus, who had advised Vitellius to resign, perceiving his desperate situation, resolved, by a bold step, to oblige Vespasian, and accordingly seized upon the Capitol. But he was premature in his attempt; for the soldiers of Vitellius attacked him with great fury, and, prevailing by their numbers, soon laid that beautiful building in ashes. During this dreadful conflagration, Vitellius was feasting

329 The Capitol burnt.

Rome.

ing in the palace of Tiberius, and beholding all the horrors of the assault with great satisfaction. Sabinus was taken prisoner, and shortly after executed by the emperor's command. Young Domitian, his nephew, who was afterwards emperor, escaped by flight, in the habit of a priest; and all the rest who survived the fire were put to the sword.

But this success served little to improve the affairs of Vitellius. He vainly sent messenger after messenger to bring Vespasian's general, Antonius, to a composition. This commander gave no answer to his requests, but still continued his march towards Rome. Being arrived before the walls of the city, the forces of Vitellius were resolved upon defending it to the utmost extremity. It was attacked on three sides with the utmost fury; while the army within, sallying upon the besiegers, defended it with equal obstinacy. The battle lasted a whole day, till at last the besieged were driven into the city, and a dreadful slaughter made of them in all the streets, which they vainly attempted to defend. In the mean time, the citizens stood by, looking on as both sides fought; and, as if they had been in a theatre, clapped their hands; at one time encouraging one party, and again the other. As either turned their backs, the citizens would then fall upon them in their places of refuge, and so kill and plunder them without mercy. But what was still more remarkable, during these dreadful slaughters both within and without the city, the people would not be prevented from celebrating one of their riotous feasts, called the *Saturnalia;* so that at one time might have been seen a strange mixture of mirth and misery, of cruelty and lewdness; in one place, buryings and slaughters; in another, drunkenness and feasting; in a word, all the horrors of a civil war, and all the licentiousness of the most abandoned security!

330 Dreadful situation of Rome.

During this complicated scene of misery, Vitellius retired privately to his wife's house, upon Mount Aventine, designing that night to fly to the army commanded by his brother at Tarracina. But, quite incapable, through fear, of forming any resolution, he changed his mind, and returned again to his palace, now void and desolate; all his slaves forsaking him in his distress, and purposely avoiding his presence. There, after wandering for some time quite disconsolate, and fearing the face of every creature he met, he hid himself in an obscure corner, from whence he was soon taken by a party of the conquering soldiers. Still, however, willing to add a few hours more to his miserable life, he begged to be kept in prison till the arrival of Vespasian at Rome, pretending that he had secrets of importance to discover. But his entreaties were vain: the soldiers binding his hands behind him, and throwing an halter round his neck, led him along, half naked, into the public forum, upbraiding him, as they proceeded, with all those bitter reproaches their malice could suggest, or his own cruelties deserve. They also tied his hair backwards as was usual with the most infamous malefactors, and held the point of a sword under his chin to prevent his hiding his face from the public. Some cast dirt and filth upon him as he passed, others struck him with their hands; some ridiculed the defects of his person, his red fiery face, and the enormous greatness of his belly. At length, being come to the place of punishment, they killed him with many blows; and then dragging the dead body through the streets with an hook, they threw it, with all possible ignominy, into the river Tiber. Such was the miserable end of this emperor, in the 57th year of his age, after a short reign of eight months and five days.

Rome.

331 Dreadful cruelties practised by the soldiers.

Vitellius being dead, the conquering army pursued their enemies throughout the city, while neither houses nor temples afforded refuge to the fugitives. The streets and public places were all strewed with dead, each man lying slain where it was his misfortune to be overtaken by his unmerciful pursuers. But not only the enemy suffered in this manner, but many of the citizens, who were obnoxious to the soldiers, were dragged from their houses, and killed without any form of trial. The heat of their resentment being somewhat abated, they next began to seek for plunder; and under pretence of searching for the enemy, left no place without marks of their rage or rapacity. Besides the soldiers, the lower rabble joined in these detestable outrages; some slaves came and discovered the riches of their masters; some were detected by their nearest friends; the whole city was filled with outcry and lamentation; insomuch, that the former ravages of Otho and Vitellius were now considered as slight evils in comparison.

332 Vespasian proclaimed emperor of Rome.

Upon the arrival of Mutianus, general to Vespasian, these slaughters ceased, and the state began to assume the appearance of former tranquillity. Vespasian was declared emperor by the unanimous consent both of the senate and the army; and dignified with all those titles, which now followed rather the power than the merit of those who were appointed to govern. Messengers were dispatched to him into Egypt, desiring his return, and testifying the utmost desire for his government. However, the winter being dangerous for sailing, he deferred his voyage to a more convenient season. Perhaps, also, the dissensions in other parts of the empire retarded his return to Rome; for one Claudius Civilis, in Lower Germany, excited his countrymen to revolt, and destroyed the Roman garrisons, which were placed in different parts of that province. But, to give his rebellion an air of justice, he caused his army to swear allegiance to Vespasian, until he found himself in a condition to throw off the mask. When he thought himself sufficiently powerful, he disclaimed all submission to the Roman government; and having overcome one or two of the lieutenants of the empire, and being joined by such of the Romans as refused obedience to the new emperor, he boldly advanced to give Cerealis, Vespasian's general, battle. In the beginning of this engagement, he seemed successful, breaking the Roman legions, and putting their cavalry to flight. But at length Cerealis by his conduct turned the fate of the day, and not only routed the enemy, but took and destroyed their camp. This engagement, however, was not decisive; several others ensued with doubtful success. An accommodation at length took place. Civilis obtained peace for his countrymen, and pardon for himself; for the Roman empire was, at this time, so torn by its own divisions, that the barbarous nations around made incursions with impunity, and were sure of obtaining peace whenever they thought proper to demand it.

333 Revolt of Claudius Civilis.

During the time of these commotions in Germany, the Sarmatians, a barbarous nation in the north-east of the empire, suddenly passed the river Ister, and marched into the Roman dominions with such celerity and fury,

334 Irruption of the Sarmatians.

Rome.

as to destroy several garrisons, and an army under the command of Fonteius Agrippa. They were driven back by Rubrius Gallus, Vespasian's lieutenant, into their native forests; where several attempts were made to confine them by garrisons and forts, placed along the confines of their country. But these hardy nations, having once found the way into the empire, never after desisted from invading it upon every opportunity, till at length they overran and destroyed it entirely.

Vespasian continued some months at Alexandria in Egypt, where it is said he cured a blind and a lame man by touching them. Before he set out for Rome, he gave his son Titus the command of the army which was to lay siege to Jerusalem; while he himself went forward, and was met many miles from Rome by all the senate, and near half the inhabitants, who gave the sincerest testimonies of their joy, in having an emperor of such great and experienced virtues. Nor did he in the least disappoint their expectations; being equally assiduous in rewarding merit, and pardoning his adversaries; in reforming the manners of the citizens, and setting them the best example in his own.

335 Titus sent against Jerusalem.

In the mean time, Titus carried on the war against the Jews with vigour, which ended in the terrible destruction of the city, mentioned under the article JEWS. After which his soldiers would have crowned Titus as conqueror; but he refused the honour, alleging that he was only an instrument in the hand of Heaven, that manifestly declared its wrath against the Jews. At Rome, however, all mouths were filled with the praises of the conqueror, who had not only showed himself an excellent general, but a courageous combatant: his return, therefore, in triumph, which he did with his father, was marked with all the magnificence and joy that was in the power of men to express. All things that were esteemed valuable or beautiful among men were brought to adorn this great occasion. Among the rich spoils were exposed vast quantities of gold taken out of the temple; but the book of their law was not the least remarkable amongst the magnificent profusion. A triumphal arch was erected upon this occasion, on which were described all the victories of Titus over the Jews, which remains almost entire to this very day. Vespasian likewise built a temple to Peace, wherein were deposited most of the Jewish spoils; and having now calmed all the commotions in every part of the empire, he shut up the temple of Janus, which had been open about five or six years.

336 Various abuses reformed by Vespasian.

Vespasian having thus given security and peace to the empire, resolved to correct numberless abuses which had grown up under the tyranny of his predecessors. To effect this with greater ease, he joined Titus with him in the consulship and tribunitial power, and in some measure admitted him a partner in all the highest offices of the state. He began with restraining the licentiousness of the army, and forcing them back to their pristine discipline. He abridged the processes that had been carried to an unreasonable length in the courts of justice. He took care to rebuild such parts of the city as had suffered in the late commotions; particularly the Capitol, which had been lately burnt; and which he now restored to more than former magnificence. He likewise built a famous amphitheatre, the ruins of which are to this day an evidence of its ancient grandeur. The other ruinous cities of the empire also shared his paternal care; he improved such as were declining, adorned others, and built many anew. In such acts as these he passed a long reign of clemency and moderation; so that it is said, no man suffered by an unjust or a severe decree during his administration.

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337 Adventure and death of Julius Sabinus.

Julius Sabinus seems to be the only person who was treated with greater rigour than was usual with this emperor. Sabinus was commander of a small army in Gaul, and had declared himself emperor upon the death of Vitellius. But his army was shortly after overcome by Vespasian's general, and he himself compelled to seek safety by flight. He wandered for some time through the Roman provinces, without being discovered: but finding the pursuit every day become closer, he was obliged to hide himself in a cave; and in it he remained concealed for no less than nine years, attended all the time by his faithful wife Empona, who provided provisions for him by day, and repaired to him by night. She was at last discovered in the performance of this pious office, and Sabinus was taken prisoner and carried to Rome. Great intercession was made to the emperor in his behalf: Empona herself appearing with her two children, and imploring her husband's pardon. But neither her tears nor entreaties could prevail; Sabinus had been too dangerous a rival for mercy; so that, though she and her children were spared, her husband suffered by the executioner.

338 Clemency and good qualities of the emperor.

But this seems to be the only instance in which he resented past offences. He caused the daughter of Vitellius, his avowed enemy, to be married into a noble family, and he himself provided her a suitable fortune. One of Nero's servants coming to beg for pardon for having once rudely thrust him out of the palace, and insulted him when in office, Vespasian only took his revenge by serving him just in the same manner. When any plots or conspiracies were formed against him, he disdained to punish the guilty, saying, That they deserved rather his contempt for their ignorance, than his resentment; as they seemed to envy him a dignity of which he daily experienced the uneasiness. His liberality towards the encouragement of arts and learning, was not less than his clemency. He settled a constant salary of 100,000 sesterces upon the teachers of rhetoric. He was particularly favourable to Josephus, the Jewish historian. Quintilian the orator, and Pliny the naturalist, flourished in his reign, and were highly esteemed by him. He was no less an encourager of all other excellencies in art; and invited the greatest masters and artificers from all parts of the world, making them considerable presents, as he found occasion.

Yet all his numerous acts of generosity and magnificence could not preserve his character from the imputation of rapacity and avarice. He revived many obsolete methods of taxation; and even bought and sold commodities himself, in order to increase his fortune. He is charged with advancing the most avaricious governors to the provinces, in order to share their plunder on their return to Rome. He descended to some very unusual and dishonourable imposts, even to the laying a tax upon urine. When his son Titus remonstrated against the meanness of such a tax, Vespasian taking a piece of money, demanded if the smell offended him; and then added, that this very money was produced by urine. But in excuse for this, we must observe, that the exchequer, when Vespasian came to the throne, was

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was so much exhausted, that he informed the senate that it would require a supply of three hundred millions (of our money) to re-establish the commonwealth. This necessity must naturally produce more numerous and heavy taxations than the empire had hitherto experienced; but while the provinces were thus obliged to contribute to the support of his power, he took every precaution to provide for their safety; so that we find but two insurrections in this reign.— In the fourth year of his reign, Antiochus king of Comagena, holding a private correspondence with the Parthians, the declared enemies of Rome, was taken prisoner in Cilicia, by Pyrrhus the governor, and sent bound to Rome. But Vespasian generously prevented all ill treatment, by giving him a residence at Lacedæmon, and allowing him a revenue suitable to his dignity. About the same time also, the Alani, a barbarous people inhabiting along the river Tanais, abandoned their barren wilds, and invaded the kingdom of Media. From thence passing into Armenia, after great ravages, they overthrew Tiridates, the king of that country, with prodigious slaughter. Titus was at length sent to chastise their insolence; but the barbarians retired at the approach of the Roman army, loaded with plunder, being compelled to wait a more favourable opportunity of renewing their irruptions. These incursions, however, were but a transient storm, the effects of which were soon repaired by the emperor's moderation and assiduity. We are told, that he now formed and established a thousand nations, which had scarcely before amounted to 200. No provinces in the empire lay out of his view and protection. He had, during his whole reign, a particular regard to Britain; his generals, Petilius Cerealis, and Julius Frontinus, brought the greatest part of the island into subjection; and Agricola, who succeeded soon after, completed what they had begun. See ENGLAND.

339 Death of Vespasian.

In this manner, having reigned 10 years, loved by his subjects, and deserving their affection, he was surprised by an indisposition at Campania, which he at once declared would be fatal, crying out, in the spirit of Paganism, "Methinks I am going to be a god." Removing from thence to the city, and afterwards to a country-seat near Reate, he was there taken with a flux, which brought him to the last extremity. However, perceiving his end approach, and just going to expire, he cried out, that an emperor ought to die standing; wherefore, raising himself upon his feet, he expired in the hands of those that sustained him.

340 Titus succeeds to the empire.

Titus being joyfully received as emperor, notwithstanding a slight opposition from his brother Domitian, who maintained that he himself was appointed, and that Titus had falsified the will, began his reign with every virtue that became an emperor and a man. During the life of his father there had been many imputations against him; but upon his exaltation to the throne he seemed entirely to take leave of his former vices, and became an example of the greatest moderation and humanity. He had long loved Berenice, sister to Agrippa king of Judea, a woman of the greatest beauty and allurements. But knowing that the connection with her was entirely disagreeable to the people of Rome, he sent her away, notwithstanding their mutual passion and the many arts she used to induce him to change his resolutions. He next discarded all those who had been the former ministers of his pleasures, and forebore to countenance the companions of his looser recreations, though he had formerly taken great pains in the selection. This moderation, added to his justice and generosity, procured him the love of all good men, and the appellation of the *delight of mankind*, which all his actions seemed calculated to ensure. As he came to the throne with all the advantages of his father's popularity, he was resolved to use every method to increase it. He therefore took particular care to punish all informers, false witnesses, and promoters of dissension, condemning them to be scourged in the most public streets, next to be dragged through the theatre, and then to be banished to the uninhabited parts of the empire, and sold as slaves. His courtesy and readiness to do good have been celebrated even by Christian writers; his principal rule being, never to send any petitioner dissatisfied away. One night, recollecting that he had done nothing beneficial to mankind the day preceding, he cried out among his friends, "I have lost a day." A sentence too remarkable not to be universally known.

341 A dreadful eruption of Vesuvius.

In this reign, an eruption of Mount Vesuvius did considerable damage, overwhelming many towns, and sending its ashes into countries more than 100 miles distant. Upon this memorable occasion, Pliny the naturalist lost his life; for, being impelled by too eager a curiosity to observe the eruption, he was suffocated in the flames *. There happened also about this time a fire at Rome, which continued three days and nights successively, which was followed by a plague, in which 10,000 men were buried in a day. The emperor, however, did all that lay in his power to repair the damage sustained by the public; and, with respect to the city, declared that he would take the whole loss of it upon himself. These disasters were in some measure counterbalanced by the successes in Britain, under Agricola. This excellent general having been sent into that country towards the latter end of Vespasian's reign, showed himself equally expert in quelling the refractory, and civilizing those who had formerly submitted to the Roman power. The Ordovices, or inhabitants of North Wales, were the first that were subdued. He then made a descent upon Mona, or the island of Anglesea; which surrendered at discretion. Having thus rendered himself master of the whole country, he took every method to restore discipline to his own army, and to introduce some share of politeness among those whom he had conquered. He exhorted them, both by advice and example, to build temples, theatres, and stately houses. He caused the sons of their nobility to be instructed in the liberal arts; he had them taught the Latin language, and induced them to imitate the Roman modes of dressing and living. Thus, by degrees, this barbarous people began to assume the luxurious manners of the conquerors, and in time even outdid them in all the refinements of sensual pleasure. For the success in Britain, Titus was saluted emperor the 13th time; but he did not long survive his honours, being seized with a violent fever at a little distance from Rome. Perceiving his death to approach, he declared, that during the whole course of his life he knew but of one action which he repented of; but that action he did not think proper to express. Shortly after, he died (not without suspicion of treachery from his brother Domitian, who had long wished to govern) in the 41st year of

* See *Vesuvius*.

342 Agricola civilizes the Britons.

343 Titus dies

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of his age, having reigned two years two months and twenty days.

344 Succeeded by Domitian.

The love which all ranks of people bore to Titus, facilitated the election of his brother Domitian, notwithstanding the ill opinion many had already conceived of him. His ambition was already but too well known, and his pride soon appeared upon his coming to the throne; having been heard to declare, that he had given the empire to his father and brother, and now received it again as his due.

The beginning of his reign was universally acceptable to the people, as he appeared equally remarkable for his clemency liberality, and justice. He carried his abhorrence of cruelty so far, as at one time to forbid the sacrificing of oxen. His liberality was such, that he would not accept of the legacies that were left him by such as had children of their own. His justice was such, that he would sit whole days and reverse the partial sentences of the ordinary judges. He appeared very careful and liberal in repairing the libraries which had been burnt, and recovering copies of such books as had been lost, sending on purpose to Alexandria to transcribe them. But he soon began to show the natural deformity of his mind. Instead of cultivating literature, as his father and brother had done, he neglected all kinds of study, addicting himself wholly to the meaner pursuits, particularly archery and gaming. No emperor before him entertained the people with such various and expensive shows. During these diversions he distributed great rewards; sitting as president himself, adorned with a purple robe and crown, with the priests of Jupiter and the college of Flavian priests about him. The meanness of his occupations in solitude were a just contrast to his exhibitions in public ostentation. He usually spent his hours of retirement in catching flies, and sticking them through with a bodkin; so that one of his servants being asked if the emperor was alone, he answered, that he had not so much as a fly to bear him company. His vices seemed every day to increase with the duration of his reign; and as he thus became more odious to his people, all their murmurs only served to add strength to his suspicions, and malice to his cruelty. His ungrateful treatment of Agricola seemed the first symptom of his natural malevolence. Domitian was always particularly fond of obtaining a military reputation, and therefore jealous of it in others. He had marched some time before into Gaul, upon a pretended expedition against the Catti, a people of Germany; and, without ever seeing the enemy, resolved to have the honour of a triumph upon his return to Rome. For that purpose he purchased a number of slaves, whom he dressed in German habits; and at the head of this miserable procession entered the city, amidst the apparent acclamations and concealed contempt of all his subjects. The successes, therefore, of Agricola, in Britain, affected him with an extreme degree of envy. This admirable general, who is scarce mentioned by any writer except Tacitus, pursued the advantages which he had already obtained. He routed the Caledonians; overcame Galgacus, the British chief, at the head of 30,000 men; and afterwards sending out a fleet to scour the coast, first discovered Great Britain to be an island*. He likewise discovered and subdued the Orkneys, and thus reduced the whole into a civilized province of the Roman empire. When the account of these successes was brought to Domitian, he received it with a seeming pleasure, but real uneasiness. He thought Agricola's rising reputation a reproach upon his own inactivity; and, instead of attempting to emulate, he resolved to suppress the merit of his services. He ordered him, therefore, the external marks of his approbation, and took care that triumphant ornaments, statues, and other honours, should be decreed him; but at the same time he removed him from his command, under a pretence of appointing him to the government of Syria. By these means, Agricola surrendered up his government to Salustius Lucullus, but soon found that Syria was otherwise disposed of. Upon his return to Rome, which was privately and by night, he was coolly received by the emperor; and dying some time after in retirement, it was supposed by some that his end was hastened by Domitian's direction.

345 His enormous vices.

* See Scotland.

346 Many barbarous nations invade the empire.

Domitian soon after found the want of so experienced a commander in the many irruptions of the barbarous nations that surrounded the empire. The Sarmatians in Europe, joined with those in Asia, made a formidable invasion; at once destroying a whole legion, and a general of the Romans. The Dacians, under the conduct of Decebalus their king, made an irruption, and overthrew the Romans in several engagements. Losses were followed by losses, so that every season became memorable for some remarkable overthrow. At last, however, the state making a vigorous exertion of its internal power, the barbarians were repelled, partly by force and partly by the assistance of money, which only served to enable them to make future invasions to greater advantage. But in whatever manner the enemy might have been repelled, Domitian was resolved not to lose the honour of a triumph. He returned in great splendour to Rome; and not contented with thus triumphing twice without a victory, he resolved to take the surname of *Germanicus*, for his conquest over a people with whom he never contended.

In proportion as the ridicule increased against him, his pride seemed every day to demand greater homage. He would permit his statues to be made only of gold and silver; assumed to himself divine honours; and ordered that all men should treat him with the same appellations which they gave to the divinity. His cruelty was not behind his arrogance; he caused numbers of the most illustrious senators and others to be put to death upon the most trifling pretences. Salustius Lucullus, his lieutenant in Britain, was destroyed only for having given his own name to a new sort of lances of his own invention. Junius Rusticu died for publishing a book, in which he commended Thrasea and Priscus, two philosophers who opposed Vespasian's coming to the throne.

Such cruelties as these, that seem almost without a motive, may naturally be supposed to have produced rebellion. Lucius Antonius, governor in Upper Germany, knowing how much the emperor was detested at home, assumed the ensigns of imperial dignity. As he was at the head of a formidable army, his success remained long doubtful; but a sudden overflowing of the Rhine dividing his army, he was set upon at that juncture by Normandus, the emperor's general, and totally routed. The news of this victory, we are told, was brought to Rome by supernatural means, on the same day that the battle was fought. Domitian's severity was

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347 Monstrous cruelty of the emperor.

was greatly increased by this success, of short duration. In order to discover those who were accomplices with the adverse party, he invented new tortures, sometimes cutting off the hands, at other times thrusting fire into the privities, of the people whom he suspected of being his enemies. During these cruelties, he aggravated their guilt by hypocrisy, never pronouncing sentence without a preamble full of gentleness and mercy. He was particularly terrible to the senate and nobility, the whole body of whom he frequently threatened entirely to extirpate. At one time, he surrounded the senate-house with his troops, to the great consternation of the senators. At another he resolved to amuse himself with their terrors in a different manner. Having invited them to a public entertainment, he received them all very formally at the entrance of his palace, and conducted them into a spacious hall, hung round with black, and illuminated by a few melancholy lamps, that diffused light only sufficient to show the horrors of the place. All around were to be seen nothing but coffins, with the names of each of the senators written upon them, together with other objects of terror, and instruments of execution. While the company beheld all the preparations with silent agony, several men, having their bodies blackened, each with a drawn sword in one hand and a flaming torch in the other, entered the hall, and danced round them. After some time, when the guests expected nothing less than instant death, well knowing Domitian's capricious cruelty, the doors were set open, and one of the servants came to inform them, that the emperor gave all the company leave to withdraw.

These cruelties were rendered still more odious by his lust and avarice. Frequently after presiding at an execution, he would retire with the lewdest prostitutes, and use the same baths which they did. His avarice, which was the consequence of his profusion, knew no bounds. He seized upon the estates of all against whom he could find the smallest pretensions; the most trifling action or word against the majesty of the prince was sufficient to ruin the possessor. He particularly exacted large sums from the rich Jews; who even then began to practise the art of peculation, for which they are at present so remarkable. He was excited against them, not only by avarice, but by jealousy. A prophecy had been long current in the east, that a person from the line of David should rule the world. Whereupon, this suspicious tyrant, willing to evade the prediction, commanded all the Jews of the lineage of David to be diligently sought out, and put to death. Two Christians, grandsons of St Jude the apostle, of that line, were brought before him; but finding them poor, and no way ambitious of temporal power, he dismissed them, considering them as objects too mean for his jealousy. However, his persecution of the Christians was more severe than that of any of his predecessors. By his letters and edicts they were banished in several parts of the empire, and put to death with all the tortures of ingenious cruelty. The predictions of Chaldeans and astrologers also, concerning his death, gave him most violent apprehensions, and kept him in the most tormenting disquietude. As he approached towards the end of his reign, he would permit no criminal, or prisoner, to be brought into his presence, till they were bound in such a manner as to be incapable of injuring

348 He persecutes the Jews and Christians.

him; and he generally secured their chains in his own hands. His jealousies increased to that degree, that he ordered the gallery in which he walked to be set round with a pellucid stone, which served as a mirror to reflect the persons of all such as approached him from behind. Every omen and prodigy gave him fresh anxiety.

349 A conspiracy formed against him.

But a period was soon to be put to this monster's cruelty. Among the number of those whom he at once caressed and suspected, was his wife Domitia, whom he had taken from Ælius Lama, her former husband. This woman, however, was become obnoxious to him, for having placed her affections upon one Paris, a player; and he resolved to dispatch her, with several others that he either hated or suspected. It was the tyrant's method to put down the names of all such as he intended to destroy in his tablets, which he kept about him with great circumspection. Domitia, fortunately happening to get a sight of them, was struck at finding her own name in the catalogue of those fated to destruction. She showed the fatal list to Norbanus and Petronius, præfects of the prætorian bands, who found themselves set down; as likewise to Stephanus, the comptroller of the household, who came into the conspiracy with alacrity. Parthenius also, the chief chamberlain, was of the number. These, after many consultations, determined on the first opportunity to put their design into execution; and at length fixed on the 18th day of September for the completion of their attempt. Domitian, whose death was every day foretold by the astrologers, who, of consequence, must at last be right in their predictions, was in some measure apprehensive of that day: and as he had been ever timorous, so he was now more particularly upon his guard. He had some time before secluded himself in the most secret recesses of his palace; and at midnight was so affrighted as to leap out of his bed, inquiring of his attendants what hour of the night it was. Upon their falsely assuring him that it was an hour later than that which he was taught to apprehend, quite transported, as if all danger was past, he prepared to go to the bath. Just then, Parthenius his chamberlain came to inform him that Stephanus the comptroller of his household desired to speak to him upon an affair of the utmost importance. The emperor having given orders that his attendants should retire, Stephanus entered with his hand in a scarf, which he had worn thus for some days, the better to conceal a dagger, as none were permitted to approach the emperor except unarmed.—He began by giving information of a pretended conspiracy, and exhibited a paper in which the particulars were specified. While Domitian was reading the contents with an eager curiosity, Stephanus drew his dagger, and struck him in the groin. The wound not being mortal, Domitian caught hold of the assassin, and threw him upon the ground, calling out for assistance. He demanded also his sword, that was usually placed under his pillow; and a boy who attended in the apartment running to fetch it found only the scabbard, for Parthenius had previously removed the blade. The struggle with Stephanus still continued: Domitian still kept him under and at one time attempted to wrest the dagger from his hand, at another to tear out his eyes with his fingers. But Parthenius, with his freedman, a gladiator, and two subaltern officers, now coming in, ran all furiously upon the emperor, and dispatched him with

350 He is murdered.

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with many wounds. In the mean time, some of the officers of the guard being alarmed, came to his assistance, but too late to save him; however, they slew Stephanus on the spot.

When it was publicly known that Domitian was slain, the joy of the senate was so great, that being assembled with the utmost haste, they began to load his memory with every reproach. His statues were commanded to be taken down; and a decree was made, that all his inscriptions should be erased, his name struck out of the registers of fame, and his funeral omitted. The people, who now took little part in the affairs of government, looked on his death with indifference; the soldiers alone, whom he had loaded with favours, and enriched by largesses, sincerely regretted their benefactor. The senate, therefore, resolved to provide a successor before the army could have an opportunity of taking an appointment upon themselves: and Cocceius Nerva was chosen to the empire the very day on which the tyrant was slain.

351 Cocceius Nerva made emperor.

Nerva was of an illustrious family, as most say, by birth a Spaniard, and above 65 years old when he was called to the throne. He was, at that time, the most remarkable man in Rome, for his virtues, moderation, and respect to the laws; and he owed his exaltation to the blameless conduct of his former life. When the senate went to pay him their submissions, he received them with his accustomed humility: while Arius Antonius, his most intimate friend, having embraced him with great familiarity, congratulated him on his accession to the empire: and indeed no emperor had ever shewn himself more worthy of the throne than Nerva; his only fault being that he was too indulgent, and often made a prey by his insidious courtiers.

352 His great clemency and moderation.

However, an excess of indulgence and humanity were faults that Rome could easily pardon, after the cruelties of such an emperor as Domitian. Being long accustomed to tyranny, they regarded Nerva's gentle reign with rapture, and even gave his imbecility the name of benevolence. Upon coming to the throne, he solemnly swore that no senator of Rome should be put to death by his command, during his reign, though they gave ever so just a cause. He conferred great favours, and bestowed large gifts, upon his particular friends. His liberality was so extensive, that upon his first promotion to the empire, he was constrained to sell his gold and silver plate, with his other rich moveables, to enable him to continue his liberalities. He released the cities of the empire from many severe impositions, which had been laid upon them by Vespasian; took off a rigorous tribute, which had been laid upon carriages; and restored those to their property who had been unjustly dispossessed by Domitian.

353 Makes several good laws.

During his short reign he made several good laws. He particularly prohibited the castration of male children; which had been likewise condemned by his predecessor, but not wholly removed. He put all those slaves to death who had, during the last reign, informed against their masters. He permitted no statues to be erected to honour him, and converted into money such of Domitian's as had been spared by the senate. He sold many rich robes, and much of the splendid furniture of the palace, and retrenched several unreasonable expences at court. At the same time, he had so little regard for money, that when Herodes Atticus, one of his subjects, had found a large treasure, and wrote to the emperor how to dispose of it, he received for answer, that he might *use it*; but the finder still informing the emperor that it was a fortune too large for a private person, Nerva, admiring his honesty, wrote him word, that then he might *abuse it*.

A life of such generosity and mildness was not, however, without its enemies. Calpurnius Crassus, with some others, formed a dangerous conspiracy to destroy him; but Nerva would use no severity: he rested satisfied with banishing those who were culpable, though the senate were for inflicting more rigorous punishments. But the most dangerous insurrection against his interests was from the prætorian bands; who, headed by Casparius Olianus, insisted upon revenging the late emperor's death, whose memory was still dear to them from his frequent liberalities. Nerva, whose kindness to good men rendered him still more obnoxious to the vicious, did all in his power to stop the progress of this insurrection; he presented himself to the mutinous soldiers, and opening his bosom, desired them to strike there, rather than be guilty of so much injustice. The soldiers, however, paid no regard to his remonstrances; but, seizing upon Petronius and Parthenius, slew them in the most ignominious manner. Not content with this, they even compelled the emperor to approve of their sedition, and to make a speech to the people, in which he thanked the cohorts for their fidelity. So disagreeable a constraint upon the emperor's inclinations was, in the end, attended with the most happy effects, as it caused the adoption of Trajan to succeed him in the empire. Nerva perceived that in the present turbulent disposition of the times, he stood in need of an assistant in the empire, who might share the fatigues of government, and contribute to keep the licentious in awe. For this purpose, setting aside all his own relations, he fixed upon Ulpius Trajan, an utter stranger to his family, who was then governor in Upper Germany, to succeed him. Having put his determination in execution, and performed the accustomed solemnities, he instantly sent off ambassadors to Cologne, where Trajan then resided, intreating his assistance in punishing those from whom he had received such an insult. The adoption of this admirable man, proved so great a curb to the licentiousness of the soldiery, that they continued in perfect obedience during the rest of this reign; and Casparius being sent to him, was, by his command, either banished or put to death.

354 Adopts Trajan as his successor.

355 Dearth of Nerva.

The adopting Trajan was the last public act of Nerva. In about three months after, having put himself in a violent passion with one Regulus a senator, he was seized with a fever, of which he shortly after died, after a short reign of one year four months and nine days. He was the first foreign emperor who reigned in Rome, and justly reputed a prince of great generosity and moderation. He is also celebrated for his wisdom, though with less reason the greatest instance he gave of it, during his reign, being in the choice of his successor.

356 Great qualities of Trajan.

Trajan's family was originally from Italy, but he himself was born in Seville in Spain. He very early accompanied his father, who was a general of the Romans, in his expeditions along the Euphrates and the Rhine; and while yet very young, acquired a considerable reputation for military accomplishments. He inured his body to fatigue; he made long marches on foot;

foot; and laboured to acquire all that skill in war which was necessary for a commander. When he was made general of the army in Lower Germany, which was one of the most considerable employements in the empire, it made no alteration in his manners or way of living; and the commander was seen no way differing from the private tribune, except in his superior wisdom and virtues. The great qualities of his mind were accompanied with all the advantages of person. His body was majestic and vigorous; he was at that middle time of life which is happily tempered with the warmth of youth and the caution of age, being 42 years old. To these qualities were added, a modesty that seemed peculiar to himself alone; so that mankind found a pleasure in praising those accomplishments of which the possesser seemed no way conscious. Upon the whole, Trajan is distinguished as the greatest and the best emperor of Rome. Others might have equalled him in war, and some might have been his rivals in clemency and goodness; but he seems the only prince who united these talents in the greatest perfection, and who appears equally to engage our admiration and our regard. Upon being informed of the death of Nerva, he prepared to return to Rome, whither he was invited by the united intreaties of the state. He therefore began his march with a discipline that was for a long time unknown in the armies of the empire. The countries through which he passed were neither ravaged nor taxed, and he entered the city, not in a triumphant manner, though he had deserved it often, but on foot, attended by the civil officers of the state, and followed by his soldiers, who marched silently forward with modesty and respect. It would be tedious and unnecessary to enter into a detail of this good monarch's labours for the state. His application to business, his moderation to his enemies, his modesty in exaltation, his liberality to the deserving, and his frugality in his own expences; these have all been the subject of panegyric among his contemporaries, and they continue to be the admiration of posterity. Upon giving the prefect of the pretorian band the sword, according to custom, he made use of this remarkable expression: "Take this sword, and use it, if I have merit, for me; if otherwise, against me." After which he added, That he who gave laws was the first who was bound to observe them. His failings were his love of women, which, however, never hurried him beyond the bounds of decency; and his immoderate passion for war, to which he had been bred up from his childhood. The first war he was engaged in after his coming to the throne was with the Dacians, who, during the reign of Domitian, had committed numberless ravages upon the provinces of the empire. He therefore raised a powerful army, and with great expedition marched into those barbarous countries, where he was vigorously opposed by Decebalus, the Dacian king, who for a long time withstood his boldest efforts; but was at last entirely reduced, and his kingdom made a Roman province. See Dacia. At his return to Rome, he entered the city in triumph; and the rejoicings for his victories lasted for the space of 120 days.

Having thus given peace and prosperity to the empire, Trajan continued his reign, loved, honoured, and almost adored, by his subjects. He adorned the city with public buildings; he freed it from such men as lived by their vices; he entertained persons of merit with the utmost familiarity; and so little feared his enemies, that he could scarcely be induced to suppose that he had any.

357 He persecutes the Christians.

It had been happy for this great prince's memory, if he had shown equal clemency to all his subjects; but about the ninth year of his reign, he was persuaded to look upon the Christians with a suspicious eye. The extreme veneration which he professed for the religion of the empire, set him sedulously to oppose every innovation, and the progress of Christianity seemed to alarm him. A law had for some time before been passed, in which all Heteriæ, or societies dissenting from the established religion, were considered as illegal, being reputed nurseries of imposture and sedition. Under the sanction of this law, the Christians were persecuted in all parts of the empire. Great numbers of them were put to death, as well by popular tumults as by edicts and judicial proceedings. However, the persecution ceased after some time; for the emperor having advice from Pliny, the proconsul in Bithynia, of the innocence and simplicity of the Christians, and of their inoffensive and moral way of living, he suspended their punishments. But a total stop was put to them upon Tiberianus the governor of Palestine's sending him word, that he was wearied out with executing the laws against the Galileans, who crowded to execution in such multitudes, that he was at a loss how to proceed. Upon this information, the emperor gave orders, that the Christians should not be sought after; but if any offered themselves, that they should suffer. In this manner the rage of persecution ceased, and the emperor found leisure to turn the force of his arms against the Armenians and Parthians, who now began to throw off all submission to Rome.

358 Insurrection of the Jews.

While he was employed in these wars, there was a dreadful insurrection of the Jews in all parts of the empire. This wretched people still infatuated, and ever expecting some signal delivery, took the advantage of Trajan's absence in the east to massacre all the Greeks and Romans whom they got into their power, without reluctance or mercy. This rebellion first began in Cyrene, a Roman province in Africa; from thence the flame extended to Egypt, and next to the island of Cyprus. These places were in a manner dispeopled with ungovernable fury. Their barbarities were such, that they ate the flesh of their enemies, wore their skins, sawed them asunder, cast them to wild beasts, made them kill each other, and studied new torments by which to destroy them. However, these cruelties were of no long duration; the governors of the respective provinces making head against their tumultuous fury, soon treated them with a retaliation of cruelty, and put them to death, not as human beings, but as outrageous pests to society. As the Jews had practised their cruelties in Cyprus particularly, a law was publicly enacted, by which it was made capital for any Jew to set foot on the island.

359 Successes of Trajan in the east.

During these bloody transactions, Trajan was prosecuting his successes in the east. His first march was into Armenia, the king of which country had disclaimed all alliance with Rome, and received the ensigns of royalty and dominion from the monarch of Parthia. However, upon the news of Trajan's expedition, his fears were so great, that he abandoned his country to the invaders; while the greatest part of his governors and nobility

nobility came submissively to the emperor, acknowledging themselves his subjects, and making him the most costly presents. Having in this manner taken possession of the whole country, and gotten the king into his power, he marched into the dominions of the king of Parthia. There entering the opulent kingdom of Mesopotamia, he reduced it into the form of a Roman province. From thence he went against the Parthians, marching on foot at the head of his army; in this manner crossing the rivers, and conforming to all the severities of discipline which were imposed on the meanest soldier. His successes against the Parthians were great and numerous. He conquered Syria and Chaldea, and took the famous city of Babylon. Here, attempting to cross the Euphrates, he was opposed by the enemy, who were resolved to stop his passage: but he secretly caused boats to be made upon the adjoining mountains; and bringing them to the water side, passed his army with great expedition, not, however, without great slaughter on both sides. From thence he traversed tracts of country which had never before been invaded by a Roman army, and seemed to take a pleasure in pursuing the same march which Alexander the Great had formerly marked out for him. Having passed the rapid streams of the Tigris, he advanced to the city of Ctesiphon, which he took, and opened himself a passage into Persia, where he made many conquests, that were rather splendid than serviceable. After subduing all the country bordering on the Tigris, he marched southward to the Persian gulf, where he subdued a monarch who possessed a considerable island made by the divided streams of that river. Here, winter coming on, he was in danger of losing the greatest part of his army by the inclemency of the climate and the inundations of the river. He therefore with indefatigable pains fitted out a fleet, and sailing down the Persian gulf, entered the Indian ocean, conquering, even to the Indies, and subduing a part of them to the Roman empire He was prevented from pursuing further conquests in this distant country, both by the revolt of many of the provinces he had already subdued, and by the scarcity of provisions, which seemed to contradict the reports of the fertility of the countries he was induced to invade. The inconveniences of increasing age also contributed to damp the ardour of this enterprise, which at one time he intended to pursue to the confines of the earth. Returning, therefore, along the Persian gulf, and sending the senate a particular account of all the nations he had conquered, the names of which alone composed a long catalogue, he prepared to punish those countries which had revolted from him. He began by laying the famous city of Edessa, in Mesopotamia, in ashes; and in a short space of time, not only retook all those places which had before acknowledged subjection, but conquered many other provinces, so as to make himself master of the most fertile kingdoms of all Asia. In this train of successes he scarce met with a repulse, except before the city Atra, in the deserts of Arabia. Wherefore judging that this was a proper time for bounding his conquests, he resolved to give a master to the countries he had subdued. With this resolution he repaired to the city Ctesiphon, in Persia; and there, with great ceremony, crowned Parthamaspates king of Parthia, to the great joy of all his subjects. He established another king also over the kingdom of Albania, near the Caspian sea. Then placing governors and lieutenants in other provinces, he resolved to return to his capital in a more magnificent manner than any of his predecessors had done before him. He accordingly left Adrian general of all his forces in the east; and continued his journey towards Rome, where the most magnificent preparations were made for his arrival. But he had not proceeded farther than the province of Cilicia, when he found himself too weak to travel in his usual manner. He therefore caused himself to be carried on ship-board to the city of Seleucia, where he died of apoplexy, having been once before attacked by that disorder. During the time of his indisposition, his wife Plotina constantly attended near him; and, knowing the emperor's dislike to Adrian, it is thought forged the will, by which he was adopted to succeed.

360 He dies, and is succeeded by Adrian.

Trajan died in the 63d year of his age, after a reign of nineteen years six months and fifteen days. How highly he was esteemed by his subjects appears by their manner of blessing his successors, always wishing them the fortune of Augustus, and the goodness of Trajan. His military virtues, however, upon which he chiefly valued himself, produced no real advantages to his country; and all his conquests disappeared, when the power was withdrawn that enforced them.

Adrian was by descent a Spaniard, and his ancestors were of the same city where Trajan was born. He was nephew to Trajan, and married to Sabina his grand-niece. When Trajan was adopted to the empire, Adrian was a tribune of the army in Mæsia, and was sent by the troops to congratulate the emperor on his advancement. However, his brother-in-law, who desired to have an opportunity of congratulating Trajan himself, supplied Adrian with a carriage that broke down on the way. But Adrian was resolved to lose no time, and performed the rest of the journey on foot. This assiduity was very pleasing to the emperor; but he disliked Adrian from several more prevailing motives. His kinsman was expensive, and involved in debt. He was, besides, inconstant, capricious, and apt to envy another's reputation. These were faults that, in Trajan's opinion, could not be compensated either by his learning or his talents. His great skill in the Greek and Latin languages, his intimate acquaintance with the laws of his country and the philosophy of the times, were no inducement to Trajan, who, being bred himself a soldier, desired to have a military man to succeed him. For this reason it was that the dying emperor would by no means appoint a successor; fearful, perhaps, of injuring his great reputation, by adopting a person that was unworthy. His death, therefore, was concealed for some time by Plotina his wife, till Adrian had sounded the inclinations of the army, and found them firm in his interests. They then produced a forged instrument, importing that Adrian was adopted to succeed in the empire. By this artifice he was elected by all orders of the state, though then absent from Rome, being left at Antioch as general of the forces in the east.

Upon Adrian's election, his first care was to write the senate, excusing himself for assuming the empire without their previous approbation; imputing it to the hasty zeal of the army, who rightly judged that the senate ought not long to remain without a head. He then

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then began to pursue a course quite opposite to that of his predecessor, taking every method of declining war, and promoting the arts of peace. He was quite satisfied with preserving the ancient limits of the empire, and seemed no way ambitious of extensive conquest. For this reason he abandoned all the conquests which Trajan had made, judging them to be rather an inconvenience than an advantage to the empire; and made the river Euphrates the boundary of the empire, placing the legions along its banks to prevent the incursions of the enemy.

361 He abandons all the eastern conquests of Trajan.

Having thus settled the affairs of the east, and leaving Severus governor of Syria, he took his journey by land to Rome, sending the ashes of Trajan thither by sea. Upon his approach to the city, he was informed of a magnificent triumph that was preparing for him; but this he modestly declined, desiring that those honours might be paid to Trajan's memory which they had designed for him. In consequence of this command, a most superb triumph was decreed, in which Trajan's statue was carried as a principal figure in the procession, it being remarked that he was the only man that ever triumphed after he was dead. Not content with paying him these extraordinary honours, his ashes were placed in a golden urn, upon the top of a column 140 feet high. On this were engraven the particulars of all his exploits in basso relievo; a work of great labour, and which is still remaining. These testimonies of respect to the memory of his predecessor, did great honour to the heart of Adrian. His virtues, however, were contrasted by a strange mixture of vices; or to say the truth, he wanted strength of mind to preserve his general rectitude of character without deviation. As an emperor, however, his conduct was most admirable, as all his public transactions appear dictated by the soundest policy and the most disinterested wisdom. But these being already enumerated under the article ADRIAN, it would be superfluous to repeat them in this place. He was succeeded by Marcus Antoninus, afterwards surnamed the *Pious*, whom he had adopted some time before his death. See *ANTONINUS Pius*.

362 Causes of the decline of the Roman empire.

From the beginning of the reign of Antoninus Pius, we may date the decline of the Roman empire. From the time of Cæsar to that of Trajan, scarce any of the emperors had either abilities or inclination to extend the limits of the empire, or even to defend it against the barbarous nations who surrounded it. During all this space, only some inconsiderable provinces to the northward of Italy, and part of the island of Britain, had been subjugated. However, as yet, nothing was lost; but the degeneracy and corruption of the people had sown those seeds of dissolution which the empire quickly began to feel. The disorders were grown to such an height, that even Trajan himself could not cure them. Indeed his eastern conquests could scarce have been preserved though the republic had been existing in all its glory; and therefore they were quietly resigned by his successor Adrian, as too distant, disaffected, and ready to be overrun by the barbarous nations. The province of Dacia, being nearer to the centre of government, was more easily preserved; and of consequence remained for a long time subject to Rome. During the 23 years of the reign of Antoninus, few remarkable events happened. The historians of those times are excessive in their praises of his justice, generosity, and other virtues, both public and private. He put a stop to the persecution of the Christians, which raged in the time of Trajan and Adrian, and reduced the Brigantes, a tribe of Britons, who had revolted. During his reign, several calamities befel the empire. The Tiber, overflowing its banks, laid the lower part of Rome under water. The inundation was followed by a fire, and this by a famine, which swept off great numbers, though the emperor took the utmost care to supply the city from the most distant provinces. At the same time the cities of Narbonne in Gaul, and Antioch in Syria, together with the great square in Carthage, were destroyed by fire; however, the emperor soon restored them to their former condition. He died in the year 163, universally lamented by his subjects, and was succeeded by Marcus Aurelius, surnamed the *Philosopher*, whom he had adopted towards the latter end of his reign.

The transactions of this emperor the reader will find related under the article *ANTONINUS Philosophus* (A).

(A) As, after the death of Marcus Aurelius, the Roman empire declined very fast, it may not be amiss here to give some account of the military and other establishments of the Roman emperors. Mr Gibbon observes, that, in the times of the commonwealth, the use of arms was confined to those who had some property to defend, and an interest in maintaining the laws which were proposed to be enacted. But, as the public freedom declined, and war became degraded into a trade, those who had the property of the country chose rather to hire others than to expose their own persons, as is the case with our modern armies. Yet, even after all consideration of property had been laid aside among the common soldiers, the officers continued to be chosen from among those who had a liberal education, together with a good share of property. However, as the common soldiers, in which the strength of an army consists, had now no more of that virtue called *patriotism*, the legions which were formerly almost invincible, no longer fought with the same ardour as before. In former times, the profession of a soldier was more honourable than any other; but, when the soldiers came to be looked upon as hirelings, the honour of the profession sunk of course, and by this means, one of the strongest motives which the soldiers had to submit to their severe discipline, and exert themselves against their enemies, was removed. On the very first entrance of a soldier into the Roman service, a solemn oath was administered to him, by which he engaged never to desert his standard; to submit his own will to that of his leaders, and to sacrifice his life for the safety of the emperor and the empire. The attachment which the Romans had to their standards was indeed astonishing. The golden eagle, which appeared in the front of the legion, was almost an object of adoration with them; and it was esteemed impious, as well as ignominious, to abandon that sacred ensign

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After the death of Marcus Aurelius, his son Commodus succeeded to the imperial throne without opposition. He was in every respect unworthy of his father: and so prone to vice, that he was generally believed to have been the son, not of Marcus Aurelius, but of a celebrated gladiator, with whom the empress Faustina

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sign in the time of danger. The centurions had a right to punish with blows, the generals with death; and it was an inflexible maxim of the Roman discipline, that a good soldier should dread his officers much more than the enemy.

Notwithstanding all this, so sensible were the Romans of the insufficiency of mere valour without skill, that military exercises were the unremitted object of their discipline. The recruits and young soldiers were constantly trained both in the morning and evening; and even the veterans were not excused from the daily repetition of their exercise. Large sheds were erected in the winter-quarters of the troops, that these useful labours might not be interrupted by tempestuous weather, and the weapons used in these imitations of war were always twice as heavy as those made use of in real action. The soldiers were diligently instructed to march, to run, leap, swim, carry heavy burdens, and handle every species of weapon either for offence or defence; to form a variety of evolutions; and to move to the sound of flutes in the pyrrhic or martial dance. It was the policy of the ablest generals, and even of the emperors themselves, to encourage these military studies by their presence and example; and we are informed that Adrian, as well as Trajan, frequently condescended to instruct the unexperienced soldiers, to reward the diligent, and sometimes to dispute with them the prize of superior strength and dexterity. Under the reigns of those princes, the science of tactics was cultivated with success; and, as long as the empire retained any vigour, their military instructions were respected as the most perfect model of Roman discipline.

From the foundation of the city, as the Romans had in a manner been continually engaged in war, many alterations had taken place in the constitution of the legions. In the time of the emperors, the heavy-armed infantry, which composed its principal strength, was divided into 10 cohorts and 55 companies, under the orders of a correspondent number of tribunes and centurions. The first cohort, which always claimed the post of honour and the custody of the eagle, was formed of 1105 soldiers, the most approved for valour and fidelity. The remaining nine cohorts consisted each of 555; and the whole body of legionary infantry consisted of 6100 men. Their arms were uniform, and excellently adapted to the nature of their service; an open helmet with a lofty crest; a breastplate or coat of mail; greaves on their legs, and a large buckler on their left arm. Their buckler was of an oblong and concave figure, four feet in length, and two and a half in breadth; framed of a light wood, covered with a bull's hide, and strongly guarded with brass plates. Besides a lighter spear, the legionary carried the pilum, a ponderous javelin about six feet long, and terminated by a massy triangular point of steel 18 inches in length. This weapon could do execution at the distance of 10 or 12 paces; but its stroke was so powerful, that no cavalry durst venture within its reach, and scarce any armour could be formed proof against it. As soon as the Roman had darted his pilum, he drew his sword, and rushed forward to close with the enemy. It was a short well-tempered Spanish blade with a double edge, and equally calculated for the purposes of pushing and striking; but the soldier was always instructed to prefer the former use of his own weapon, as his body remained thereby the less exposed, while at the same time he inflicted a more dangerous wound on his adversary. The legion was usually drawn up eight deep; and the regular distance of three feet was left between the files and ranks. Thus the soldier possessed a free space for his arms and motions; and sufficent intervals were allowed, through which seasonable reinforcements might be introduced to the relief of the combatants. The cavalry, without which the force of the legion remained imperfect, was divided into ten troops or squadrons: the first as the companion of the first cohort, consisted of 132 men: whilst each of the other nine amounted only to 66. The entire establishment formed a body of 726 horse, naturally connected with its respective legion; but occasionally acting in the line, and composing a part of the wings of the army. The cavalry of the ancient republic was composed of the noblest youths of Rome and Italy, who, by performing their military services on horseback, prepared themselves for the offices of senator and consul; but after the alteration of manners and government which took place at the end of the commonwealth, the most wealthy of the equestrian order were engaged in the administration of justice and of the revenue; and whenever they embraced the profession of arms, they were immediately entrusted with a troop of horse or a cohort of foot, and the cavalry, as well as the infantry, were recruited from the provinces. The horses were bred for the most part in Spain, or in Cappadocia. The Roman troopers despised the complete armour which encumbered the cavalry of the east. Instead of this, their arms consisted only of an helmet, an oblong shield, light boots, and a coat of mail. A javelin and a long broadsword were their principal offensive weapons. They seem to have borrowed the use of lances and iron maces from the barbarians.

Besides the legionaries, the Romans, especially in the times of the emperors, began to take auxiliaries into their pay. Considerable levies were regularly made among those provincials who had not yet attained to the rank of Roman citizens. Many dependent princes and communities, dispersed round the frontiers, were permitted, for a while, to hold their freedom and security by tenure of military service. Even select troops of barbarians were compelled to enter into the service; which was afterwards found to be a most destructive expedient, not only as it carried the Roman military skill among barbarians who were otherwise unacquainted with it, but it gave these auxiliaries themselves frequent opportunities of revolting, and at last of dethroning the emperors at pleasure, and even of overturning the empire itself. The number of auxiliaries was seldom inferior to that of the

Faustina was supposed to be intimate. According to Mr Gibbon, however, Commodus was not, as has been represented, a tiger born with an insatiate thirst of human blood, and capable from his infancy of the most inhuman actions. Nature had formed him of a weak, rather than a wicked disposition. His simplicity and timidity

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the legionaries themselves. The bravest and most faithful hands among them were placed under the command of prefects and centurions, and severely trained in the arts of Roman discipline; but the far greater part retained those arms which they had used in their native country. By this institution, each legion, to whom a certain number of auxiliaries was allotted, contained within itself every species of lighter troops, and of missile weapons; and was capable of encountering every nation with the advantages of its respective arms and discipline. Nor was the legion destitute of what, in modern language, would be styled a train of artillery. This consisted of 10 military engines of the largest size, and 56 smaller ones; but all of them, either in an oblique or horizontal manner, discharged stones and darts with irresistible violence.

The camp of a Roman legion presented the appearance of a fortified city. As soon as the space was marked out, the pioneers carefully levelled the ground, and removed every impediment that might interrupt its perfect regularity. Its form was an exact quadrangle; and it may be computed that a square of 700 yards was sufficient for the encampment of 20,000 Romans, though a similar number of modern troops would expose to the enemy a front of more than treble that extent. In the midst of the camp, the prætorium, or general's tent, arose above the others; and the cavalry, infantry, and auxiliaries, had each their respective stations appointed them. The streets were broad, and perfectly straight; and a vacant space of 200 feet was left on all sides between the tents and rampart. The rampart itself was 12 feet high, armed with a line of strong and intricate palisades, and defended by a ditch 12 feet deep and as much broad. This labour was performed by the legions themselves, to whom the use of the spade and the pick-axe was no less familiar than that of the sword or pilum. Whenever the trumpet gave the signal of departure, the camp was almost instantly broke up, and the troops fell into their ranks without delay or confusion. Besides their arms, which the soldiers scarcely considered as an incumbrance, they were laden with their kitchen-furniture, the instruments of fortification, and provisions for many days. Under this weight, which would oppress a modern soldier, they were taught to advance by a regular step, near 20 miles in 6 hours. On the appearance of an enemy, they threw aside their baggage, and, by easy and rapid evolutions, converted the column of march into an order of battle. The slingers and archers skirmished in the front; the auxiliaries formed the first line, and were seconded or sustained by the legions. The cavalry covered the flanks, and the military engineers were placed in the rear.

The numbers of the Roman armies are not easily calculated with any tolerable accuracy. We may compute, however, that the legion, which consisted of 6831 Romans, might, with its attendant auxiliaries, amount to 12,500 men. The peace establishment of Adrian and his successors was composed of no fewer than 30 of these formidable brigades; and most probably formed an army of 370,000 men. Instead of being confined within the walls of fortified cities, which the Romans considered as the refuge of weakness or pusillanimity, the legions were encamped on the banks of the great rivers, and along the frontiers of the barbarians. Three legions were sufficient for Britain. The principal strength lay upon the Rhine and Danube, and consisted of 16 legions, disposed in the following proportions: two in the Lower, and three in the Upper Germany; one in Rhætia; one in Noricum; four in Pannonia; three in Mœsia; and two in Dacia. The defence of the Euphrates was intrusted to eight legions, six of whom were placed in Syria, and the other two in Cappadocia. With regard to Egypt, Africa, and Spain, as they were far removed from any important scene of war, a single legion maintained the domestic tranquillity of each of those great provinces. Italy was defended by the city cohorts and prætorian guards formerly mentioned. These differed nothing from the legions in their arms and institutions, except in a more splendid appearance, and a less rigid discipline.

The Roman navy, though sufficient for every useful purpose of government, never seemed adequate to the greatness of the empire. The policy of the emperors was directed only to preserve the peaceful dominion of the Mediterranean sea, which was included within their dominions, and to protect the commerce of their subjects. Two permanent fleets were stationed by Augustus, one at Ravenna on the Adriatic, and the other at Misenum in the bay of Naples. A very considerable force was also stationed at Frejus in Provence; and the Euxine was guarded by 40 ships and 3000 soldiers. To all these we may add the fleet which preserved the communication between Gaul and Britain, and a great number of vessels constantly maintained on the Rhine and Danube to harass the enemy, or intercept the passage of the barbarians. The whole military establishment by sea and land amounted to about 450,000 men.

It was not, however, to this formidable power alone that the empire owed its greatness. The policy of the laws contributed as much to its support as the martial establishment itself. According to Mr Gibbon, though the provinces might occasionally suffer from the partial abuse of delegated authority, the general principle of government was wise, simple, and beneficent. Among these beneficent principles he reckons that of universal toleration; but to this there were several exceptions: for the British Druids were persecuted and destroyed by the Romans on account of their religion; the Egyptians and Jews were sometimes persecuted; and the Christians were frequently so, and that even under the very best emperors, Trajan and Marcus Aurelius. However, as a very general toleration of religious sentiments did take place under the heathen emperors of Rome, we must certainly look upon this as one of the causes of the prosperity of the empire.

Another thing which greatly contributed to the strength and prosperity of the empire, was the extending of the freedom

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363 Monstrous cruelty of Commodus.

timidity rendered him the slave of his attendants, who gradually corrupted his mind. His cruelty, which at first obeyed the dictates of others, degenerated into habit, and at length became the ruling passion of his soul." But however this may be, it is certain that the actions of this emperor were flagitious almost beyond a

freedom of Rome to so many people. "The narrow policy (says Mr Gibbon) of preserving without any foreign mixture the pure blood of the ancient citizens, had checked the fortune and hastened the ruin of Athens and Sparta. During the most flourishing era of the Athenian commonwealth, the number of citizens decreased gradually from about 30,000 to 21,000. If, on the contrary, we study the growth of the Roman republic, we may discover, that notwithstanding the incessant demands of wars and colonies, the citizens, who, in the time of Servius Tullius, amounted to no more than 83,000, were multiplied, before the end of the social war, to the number of 463,000 men able to bear arms in the service of their country. When the allies of Rome claimed an equal share of honours and privileges, the senate preferred the chance of war to a concession; however, at last, all the Italian states, except the Samnites and Lucanians, were admitted into the bosom of the republic, and soon contributed to the ruin of public freedom. When the popular assemblies had been suppressed by the administration of the emperors, the conquerors were distinguished from the vanquished nations only as the first and most honourable order of subjects; and their increase, however rapid, was no longer exposed to the same dangers. Yet the princes who adopted the maxims of Augustus, guarded with the strictest care the dignity of the Roman name, and diffused the freedom of the city with a prudent liberality.

"Till the privileges of the Romans had been progressively extended to all the inhabitants of the empire, an important distinction was preserved between Italy and the provinces. The estates of the Italians were exempted from taxes, and their persons from the arbitrary jurisdiction of governors. From the foot of the Alps to the extremity of Calabria, all the natives of Italy were born citizens of Rome. The provinces of the empire were destitute of any public force or constitutional freedom. The free states and cities, which had embraced the cause of Rome, were insensibly sunk into real servitude. The public authority was everywhere engrossed by the ministers of the senate and of the emperors, and that authority was absolute. But the same salutary maxims of government which had secured the peace and obedience of Italy, were extended to the most distant conquests. A nation of Romans was gradually formed in the provinces, by the double expedient of introducing colonies, and of admitting the most faithful and deserving provincials to the freedom of Rome.

"So sensible were the Romans of the influence of language over national manners, that it was their most serious care to extend, with the progress of their arms, the use of the Latin tongue. The eastern provinces, however, were less docile in this respect than the western ones; and this obvious difference made a distinction between the two portions of the empire, which became very remarkable when it began to decline. Nor was the influence of the Greek language and sentiments confined to the narrow limits of that once celebrated country. Their empire, by the progress of colonies and conquest, had been diffused from the Adriatic to the Euphrates and Nile. Asia was covered with Greek cities, and the long reign of the Macedonian kings had introduced a silent revolution into Syria and Egypt. In their pompous courts, those princes united the elegance of Athens with the luxury of the east; and the example of the court was imitated, at an humble distance, by the higher ranks of their subjects. Such was the general division of the Roman empire into the Latin and Greek languages; to which we may add a third distinction for the body of the natives in Syria, and especially in Egypt. The use of their ancient dialects, by secluding them from the commerce of mankind, checked the improvements of these barbarians. The slothful effeminacy of the former exposed them to the contempt, the sullen ferociousness of the later excited the aversion of the Roman conquerors. They seldom desired or deserved the freedom of the city; and it is remarked, that more than 230 years elapsed after the ruin of the Ptolemies, before a native Egyptian was admitted into the senate of Rome.

"The number of subjects who acknowledged the laws of Rome, of citizens, of provincials, and of slaves, cannot now be fixed with such accuracy as the importance of the object would deserve. We are informed, that when the emperor Claudius exercised the office of censor, he took an account of 6,945,000 Roman citizens; who, with the proportion of women and children, must have amounted to about 20,000,000 of souls. The multitude of subjects of an inferior rank was uncertain and fluctuating: but after weighing with attention every circumstance which could influence the balance, it seems probable that there existed in the time of Claudius, about twice as many provincials as there were Roman citizens, of either sex, and of every age; and that the slaves were at least equal in number to the free inhabitants of the Roman world. The total amount of this imperfect calculation would rise to about 120 millions of persons; a degree of population which possibly exceeds that of modern Europe, and forms the most numerous society that has ever been united under the same system of government.

"Domestic peace and union were the natural consequences of the moderate and comprehensive policy embraced by the Romans. The vanquished nations, blended into one great people, resigned the hope, nay even the wish, of resuming their independence, and scarcely considered their own existence as distinct from the existence of Rome. The established authority of the emperors pervaded, without an effort, the wide extent of their dominions, and was exercised with the same facility on the banks of the Thames, or of the Nile, as on those of the Tiber. The legions were destined to serve against the public enemy, and the civil magistrate seldom required the aid of a military force.

"It was scarcely possible that the eyes of contemporaries should discover in the public felicity the latent causes of decay and corruption. This long peace, and the uniform government of the Romans, introduced a slow and secret

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a parallel. Many very strange instances of his cruelty are related by the ancients. He is said to have cut asunder a corpulent man whom he saw walking along the street; partly, to try his own strength, in which he greatly excelled; and partly, as he himself owned, out of curiosity, to see his entrails drop out at once. He took pleasure in cutting off the feet, and putting out the eyes, of such as he met in his rambles through the city; telling the former, after he had thus maimed them, that they now belonged to the nation of *Monopodii;* and the latter, that they were now become *Luscinii* alluding to the work *luscus*, "one-eyed." Some he murdered because they were negligently dressed; others, because they seemed to be trimmed with too much nicety. He pretended to great skill in surgery, especially at letting blood: but sometimes, instead of easing by that means those whom he visited, or who were prevailed upon to recur to him, he cut off, by way of diversion, their ears and noses. His lewdness and debaucheries were equally remarkable, and equally infamous. However, he is said to have been exceedingly well skilled in archery, and to have performed incredible feats in that way. He excelled all men in strength; and is said to have run an elephant through with his spear, and to have killed in the amphitheatre 100 lions, one after another, and each of them at one blow. Forgetful of his dignity, he entered the lists with the common gladiators, and came off conqueror 735 times; whence he often subscribed himself in his letters, *the conqueror of* 1000 *gladiators.*

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364 He concludes a peace with the barbarians.

The public transactions of this reign were but very few. Soon after his father's death, Commodus concluded a peace with the Marcomanni, Quadi, &c. on the following conditions. 1. That they should not settle within five miles of the Danube. 2. That they should deliver up their arms, and supply the Romans with a certain number of troops when required. 3. That they should assemble but once a month, in one place only, and that in presence of a Roman centurion. 4. That they should not make war upon the Jazyges, Buri, or Vandals, without the consent of the people of Rome. On the other hand, Commodus promised to abandon, which accordingly he did, all the castles and fortresses held by the Romans in their country, excepting such as were within five miles of the Danube. With the other German nations, whom his father had almost entirely reduced, he concluded a very dishonourable peace; nay, of some he purchased it with large sums of money.

Soon after the return of the emperor to Rome, his sister Lucilla, perceiving that he was universally abhorred on account of his cruelty, formed a conspiracy against his life. Among the conspirators were many senators of distinction. It was agreed among them that they should fall upon the emperor while he was going to the amphitheatre through a narrow and dark passage; and that Claudius Pompeianus, to whom Lucilla had betrothed her daughter, should give the first blow. But he, instead of striking at once, showed him the naked dagger, and cried out, "This present the senate sends you:"

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secret poison into the vitals of the empire. The minds of men were gradually reduced to the same level; the fire of genius was extinguished, and even the military spirit evaporated. The natives of Europe were brave and robust. Spain, Gaul, Britain, and Illyricum, supplied the legions with excellent soldiers, and constituted the real strength of the monarchy. Their personal valour remained; but they no longer possessed that public courage which is nourished by the love of independence, the sense of national honour, the presence of danger, and the habit of command. They received laws and governors from the will of their sovereign, and trusted for their defence to a mercenary army. The posterity of their boldest leaders were contented with the rank of citizens and subjects. The most aspiring spirits resorted to the court or standard of the emperors; and the deserted provinces, deprived of political strength or union, insensibly sunk into the languid indifference of private life.

"The love of letters, almost inseparable from peace and refinement, was fashionable among the subjects of Adrian and the Antonines; who were themselves men of learning and curiosity. It was diffused over the whole extent of their empire; the most northern tribes of Britons had acquired a taste for rhetoric; Homer as well as Virgil were transcribed and studied on the banks of the Rhine and Danube; and the most liberal rewards sought out the faintest glimmerings of literary merit. The sciences of physic and astronomy were cultivated with some degree of reputation; but, if we except Lucian, an age of indolence passed away without producing a single writer of genius who deserved the attention of posterity. The authority of Plato, of Aristotle, of Zeno, and Epicurus, still reigned in the schools; and their systems, transmitted with blind deference from one generation of disciples to another, precluded every generous attempt to correct the errors or enlarge the bounds of the human mind. The beauties of the poets and orators, instead of kindling a fire like their own, produced only servile imitations; or, if any ventured to deviate from these models, they deviated at the same time from good sense and propriety. The provincials of Rome, trained by an uniform artificial education, were engaged in a very unequal competition with those bold ancients, who, by expressing their genuine feelings in their native tongue, had already occupied every place of honour. The name of *poet* was almost forgotten; that of *orator* was usurped by the sophists. A cloud of critics, of compilers, of commentators, darkened the face of learning, and the decline of genius was soon followed by the corruption of taste.

"Longinus observes and laments the degeneracy of his contemporaries, which debased their sentiments, enervated their courage, and depressed their talents; comparing them to pigmies, whose stature has been diminished by constant pressure on their limbs. This diminutive stature of mankind was constantly sinking below the old standard, and the Roman world was indeed peopled by a race of pigmies; when the fierce giants of the north broke in and mended the puny breed. They restored a manly freedom; and, after the revolution of ten centuries, freedom became the happy parent of taste and science."

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you:" so that the guards had time to rescue the emperor, and to seize the conspirators, who were soon after put to death. The emperor banished his sister to the island of Capreæ, where he soon after caused her to be privately murdered.

The favourite minister of Commodus was one Perennis; who in oppression and cruelty seems to have been nothing inferior to those of the most tyrannical emperors. During the first part of the reign of Commodus, he ruled with an absolute sway; but at last was torn in pieces by the enraged soldiery, whom he had offended by his too great severity. He was succeeded in his place by a freedman named *Cleander;* for the emperor himself was so much taken up with his pleasures, that he could not bestow even a moment on the affairs of state. The new minister abused his power in a more flagrant manner than even his predecessor had done. By him all things were openly set to sale; offices, provinces, public revenues, justice, and the lives of men both innocent and guilty. The minister, who ruled the emperor without controul, infused such terrors into his timorous mind, that he changed the captains of his guards almost continually. One Niger enjoyed the dignity only six hours; another only five days; and several others a still shorter space. Most of those officers lost their lives along with their employments; being accused of treason by Cleander, who continually solicited, and at last obtained, that important post for himself.

365 Revolt of Maternus.

In the year 187 happened a remarkable revolt. One Maternus, a common soldier, having fled from his colours, and being joined by many others guilty of the same crime, grew in a short time so powerful, the banditti flocking to him from all parts, that he overran and plundered great part of Gaul and Spain; stormed the strongest cities; and struck the emperor and people of Rome with such terror, that troops were raised, and armies dispatched against him. Pescennius Niger was sent to make head against him in Gaul, where he became very intimate with Severus, who was then governor of Lyons, and who wrote a letter to the emperor, commanding the prudent and gallant behaviour of Niger in pursuing the rebels. Maternus, finding himself reduced to great straits, divided his men into several small bands, and marched privately with them by different ways into Italy; having nothing less in view than to murder the emperor during the solemnity which was kept annually in honour of the mother of the gods, and on his death to seize upon the empire for himself. They all arrived at Rome undiscovered; and several of his men had already mixed themselves with the emperor's guards, when others of his own party betrayed him. He was immediately seized and executed; and his death put an end to the disturbances which some of his followers had begun to raise in other provinces. In the same year broke out the most dreadful plague, says Dio Cassius, that had been known. It lasted two or three years; and raged with the greatest violence at Rome, where it frequently carried off 2000 persons a day. The following year, a dreadful fire, which consumed a great part of the city, was kindled by lightning; and at the same time the people were afflicted with a dreadful famine, occasioned, according to some authors, by Cleander, who, having now in view nothing less than the sovereignty itself, bought up underhand all the corn, in order to raise the price of it, and gain the affections of the soldiery and people by distributing it among them. Others tell us, however, that Papirius Dionysius, whose province it was to supply the city with provisions, contributed towards the famine, in order to make the people rise against Cleander. Be this as it will, the populace ascribed all their calamities to this hated minister; and one day, while the people were celebrating the Circensian games, a troop of children, having at their head a young woman of an extraordinary stature and fierce aspect, entering the circus, began to utter aloud many bitter invectives and dreadful curses against Cleander; which being for some time answered by the people with other invectives and curses, the whole multitude arose all of a sudden, and flew to the place where Cleander at that time resided with the emperor. There, renewing their invectives, they demanded the head of the minister who had been the occasion of so many calamities. Hereupon Cleander ordered the prætorian cavalry to charge the multitude; which they did accordingly, driving them with great slaughter into the city. But the populace discharging showers of stones, bricks, and tiles, from the tops of the houses and from the windows, and the city-guards at the same time taking part with the people, the prætorian horse were soon obliged to save themselves by flight: nor was the slaughter ended till the emperor, apprised of the tumult, caused the head of Cleander to be struck off and thrown out to the enraged populace. The emperor himself did not long survive Cleander; being cut off by a conspiracy of Marcia his favourite concubine, Lætus captain of the guards, and Eclectus his chamberlain.

367 Commodus murdered.

No sooner was the death of Commodus known, than the senate assembled, and declared him a public enemy, loading him with curses, ordering his statues to be broken to pieces, and his name to be rased out of all public inscriptions; and demanded his body, that it might be dragged through the streets and thrown into the Tiber. But Helvius Pertinax, whom the conspirators had previously designed for the empire, and who had already assumed it, prevented such an outrage, by letting the senators know that Commodus was already buried. This extraordinary personage had passed through many changes of fortune. He was originally the son of an enfranchised slave, called *Ælius*, who only gave him so much learning as to qualify him for keeping a little shop in the city. He then became a schoolmaster, afterwards studied the law, and after that became a soldier; in which station his behaviour was such as caused him to be soon made captain of a cohort against the Parthians. Being thus introduced to arms, he went through the usual gradation of military preferment in Britain and Mœsia, until he became the commander of a legion under Aurelius. In this station he performed such excellent services against the barbarians, that he was made consul, and successively governor of Dacia, Syria, and Asia Minor. In the reign of Commodus he was banished; but soon after recalled, and sent into Britain to reform the abuses in the army. In this employment his usual extraordinary fortune attended him: he was opposed by a sedition among the legions, and left for dead among many others that were slain. However, he got over this danger, severely punished the mutineers, and established

368 Pertinax raised to the empire.

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ed regularity and discipline among the troops he was sent to command. From thence he was removed into Africa, where the sedition of the soldiers had like to have been as fatal to him as in his former government. Removing from Africa, and fatigued with an active life, he betook himself to retirement: but Commodus, willing to keep him still in view, made him prefect of the city; which employment he filled, when the conspirators fixed upon him as the properest person to succeed to the empire.

His being advanced by Commodus only served to increase his fears of falling as an object of his suspicions; when therefore the conspirators repaired to his house by night, he considered their arrival as a command from the emperor for his death. Upon Lætus entering his apartment, Pertinax, without any show of fear, cried out, That for many days he had expected to end his life in that manner, wondering that the emperor had deferred it so long. However, he was not a little surprised when informed of the real cause of their visit; and being strongly urged to accept of the empire, he at last complied with their offer.

369 His excellent reign.

Being carried to the camp, Pertinax was proclaimed emperor: soon after the citizens and senate consented; the joy for the election of a new sovereign being scarcely equal to that for the death of the former. The provinces quickly followed the example of Rome; so that he began his reign with universal satisfaction to the whole empire, in the 68th year of his age.

Nothing could exceed the wisdom and justice of this monarch's reign the short time it continued. He punished all those who had served to corrupt the late emperor, and disposed of his ill-got possessions to public uses. He attempted to restrain the licentiousness of the prætorian bands, and put a stop to the injuries and insolences they committed against the people. He sold most of the buffoons and jesters of Commodus as slaves; particularly such as had obscene names. He continually frequented the senate as often as it sat, and never refused an audience even to the meanest of the people. His success in foreign affairs was equal to his internal policy. When the barbarous nations abroad had certain intelligence that he was emperor, they immediately laid down their arms, well knowing the opposition they were to expect from so experienced a commander. His great error was avarice; and that, in some measure, served to hasten his ruin.

The prætorian soldiers, whose manners he had attempted to reform, having been long corrupted by the indulgence and profusion of their former monarchs, began to hate him for the parsimony and discipline he had introduced among them. They therefore resolved to dethrone him; and for that purpose declared Maternus, an ancient senator, emperor, and endeavoured to carry him to the camp to proclaim him. Maternus, however, was too just to the merits of Pertinax, and too faithful a subject, to concur in their seditious designs; wherefore escaping out of their hands, he fled, first to the emperor, and then out of the city. They then nominated one Falco, another senator; whom the senate would have ordered for execution, had not Pertinax interposed, who declared that during his reign no senator should suffer death.

The prætorian soldiers then resolved unanimously not to use any secret conspiracies, or private contrivances, but boldly to seize upon the emperor and empire at once. They accordingly, in a tumultuous manner, marched through the streets of Rome, and entered the palace without opposition. Such was the terror at their approach, that the greatest part of the emperor's attendants forsook him; while those who remained earnestly intreated him to fly to the body of the people and interest them in his defence. However, he rejected their advice; declaring, that it was unworthy his imperial dignity, and all his past actions, to save himself by flight. Having thus resolved to face the rebels, he had some hopes that his presence alone would terrify and confound them. But what could his former virtues, or the dignity of command, avail against a tumultuous rabble, nursed up in vice, and ministers of former tyranny? One Thrasius, a Tungrian, struck him with his lance on the breast, crying out, "The soldiers send you this." Pertinax finding all was over, covered his head with his robe, and sunk down, mangled with a multitude of wounds, which he received from various assassins. Eclectus, and some more of his attendants, who attempted to defend him, were also slain: his son and daughter only escaped, who happened to be lodged out of the palace. Thus after a reign of three months, Pertinax fell a sacrifice to the licentious fury of the prætorian army! From the number of his adventures, he was called the *tennis ball of Fortune;* and certainly no man ever experienced such a variety of situations with so blameless a character.

370 Is murdered by the prætorian soldiers.

371 The empire exposed to sale, and bought by Didius Julianus.

The soldiers having committed this outrage, retired with great precipitation; and getting out of the city to the rest of their companions, expeditiously fortified their camp, expecting to be attacked by the citizens. Two days having passed without any attempt of this kind, they became more insolent; and willing to make use of the power of which they found themselves possessed, made proclamation, that they would sell the empire to whoever would purchase it at the highest price. In consequence of this proclamation, so odious and unjust, only two bidders were found; namely, Sulpicianus and Didius Julianus: The former, a consular person, præfect of the city, and son-in-law to the late emperor Pertinax; the latter, a consular person likewise, a great lawyer, and the wealthiest man in the city. He was sitting with some friends at dinner when the proclamation was published; and being charmed with the prospect of unbounded power, immediately rose from table and hastened to the camp. Sulpicianus was got there before him; but as he had rather promises than treasure to bestow, the offers of Didius, who produced immense sums of ready money, prevailed. He was received into the camp by a ladder, and they instantly swore to obey him as emperor. From the camp he was attended by his new electors into the city; the whole body of his guards, which consisted of 10,000 men, ranged around him in such order as if they had prepared for battle, and not for a peaceful ceremony. The citizens, however, refused to confirm his election; but rather cursed him as he passed. Upon being conducted to the senate-house, he addressed the few senators that were present in a very laconic speech: "Fathers, you want an emperor; and I am the fittest person you can choose." But even this, short as it seems, was unnecessary, since the senate had it not in their power to refuse their approbation. His speech

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being backed by the army, to whom he had given about a million of our money, succeeded. The choice of the soldiers was confirmed by the senate, and Didius was acknowledged emperor, now in the 57th year of his age.

It should seem by this weak monarch's conduct when seated on the throne, that he thought the government of an empire rather a pleasure than a toil. Instead of attempting to gain the hearts of his subjects, he gave himself up to ease and inactivity, utterly regardless of the duties of his station. He was mild and gentle indeed; neither injuring any nor expecting to be injured. But that avarice, by which he became opulent, still followed him in his exaltation; so that the very soldiers who elected him, soon began to detest him for those qualities, so very opposite to a military character. The people also, against whose consent he was chosen, were no less inimical. Whenever he issued from his palace, they openly poured forth their imprecations against him; crying out, that he was a thief, and had stolen the empire. Didius, however, in the true spirit of a trader, patiently bore it all; sometimes beckoning them with smiles to approach him; and testifying his regard by every kind of submission.

372 Pescennius Niger and Septimius Severus assume the empire.

While Didius was thus contemptuously treated at home, two valiant generals, in different parts of the empire, disclaimed his authority, and boldly resolved to attempt the throne for themselves. These were, Pescennius Niger, governor of Syria; and Septimius Severus, commander of the German legions. Niger was beloved by the people for his clemency and valour; and the report of his proposing Pertinax for his model, and resolving to revenge his death, gained him universal esteem among the people. Being thus apprised of their inclinations, he easily induced his army in Syria to proclaim him emperor; and his title was, shortly after, acknowledged by all the kings and potentates in Asia, who sent their ambassadors to him as their lawful prince. The pleasure of being thus treated as a monarch, in some measure retarded his endeavours to secure his title. Entirely satisfied with the homage of those about him, he neglected the opportunities of suppressing his rivals; and gave himself up to luxury and feasting at Antioch. The conduct of Severus, an African by birth, was very different. Being proclaimed by his army, he began by promising to revenge the death of Pertinax, and took upon him his name. He next secured the fidelity of all the strong places in his province; and then resolved, with the utmost expedition, to march with his whole force directly to Rome.

373 Julianus deposed and put to death.

In the mean time, Didius, who disregarded the attempts of Niger, was greatly alarmed at those of Severus. He first, with many solicitations, procured the senate to proclaim him a traitor. He then applied himself to make the necessary provisions to oppose him, in which he found nothing but disappointment. The cohorts that elected him were enervated by vice and luxury; the people detested his cause; and the cities of Italy had long been disused to the arts of war. Some advised him to march forward, and meet Severus as he was crossing the Alps; others were for sending the generals upon that expedition. The unfortunate Didius, unequal to the task of empire, and quite confounded with the multiplicity of counsels, could take no other resolution but that of awaiting his rival's coming at Rome. Accordingly, soon after being informed of his approach, he obtained the consent of the senate to send his ambassadors, offering to make him a partner of the empire. But Severus rejected this offer, conscious of his own strength, and of the weakness of the proposer. The senate soon appeared of the same sentiments; and perceiving the timidity and weakness of their present master, began to abandon him, alleging, that he who could not defend the empire was not worthy to govern it. Didius vainly endeavoured to reduce them to their duty, first by intreaties, and then by threats; but these only served to hasten his destruction. The senate being called together, as was formerly practised in the times of the commonwealth by the consuls, they unanimously decreed, That Didius should be deprived of the empire, and that Severus should be proclaimed in his stead. They then commanded Didius to be slain; and sent messengers for this purpose to the palace, where they found him disarmed, and weeping among a few friends that still adhered to his interest. When the executioners began to prepare for their fatal errand, he expostulated with them, demanding what crime he had committed? He could not be persuaded to think, that paying his money, and receiving an empire in exchange, deserved so severe a punishment. The executioners, however, were neither able nor willing to enter into the merits of the cause; they presently led him into the secret baths of the palace, and obliging him to stretch his neck forwards, after the manner of condemned criminals, struck off his head, and placed it up in those courts where he had formerly pleaded with great success.

374 Severus declared emperor.

The senate having thus dispatched Didius, sent ambassadors to Severus, yielding him obedience, granting him the ensigns and the usual titles of empire, and informing him of the death of Didius. Severus, who was now about 47 years of age, received them with all proper respect; and entertaining them honourably, continued his march towards Rome. As he came near the city, his first exertion of power was, to have all the prætorian soldiers who had lately sold the empire come forth unarmed to meet him. These, though sensible of their danger, had no other resource left but compliance; and accordingly came forward with branches of laurel, as if to welcome his approach. Severus, however, soon showed how little capable their present submission was to atone for their past offences: after upbraiding them, in a short speech, with all their crimes, he commanded them to be instantly stripped of their military habits, deprived of the name and honour of soldiers, and banished 100 miles from Rome. He then entered the city in a military manner, took possession of the palace, and promised the senate to conduct himself with clemency and justice. However, though he united great vigour with the most refined policy, yet his African cunning was considered as a particular defect in him. He is celebrated for his wit, learning, and prudence; but equally blamed for infidelity and cruelty. In short, he seemed alike disposed to the performance of the greatest acts of virtue and the most bloody severities. He began his command, by seizing all the children of such as had employments or authority in the east, and detained them as pledges for their fathers loyalty. He next supplied the city

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city with corn; and then with all possible expedition marched against Niger, who was still considered and honoured as emperor of the east.

[374] Niger defeated and killed.

One of the chief obstacles to his march was, the leaving behind him Clodius Albinus, commander of the legions in Britain, whom he by all means wished to secure in his interests. For this end he endeavoured to prevail upon him, by giving him hopes of succeeding to the empire; insinuating, that he himself was declining, and his children were as yet but infants. To deceive him still farther, he wrote in the same style to the senate, gave him the title of *Cæsar*, and ordered money to be coined with his image. These artifices serving to lull Albinus into false security, Severus marched against Niger with all his forces. After some undecisive conflicts, the last great battle that was fought between these extraordinary men was upon the plains of Issus, on the very spot where Alexander had formerly conquered Darius. Besides the two great armies drawn up on the plain, the neighbouring mountains were covered with infinite numbers of people, who were merely led by curiosity to become spectators of an engagement that was to determine the empire of the world. Severus was conqueror; and Niger's head being struck off by some soldiers of the conquering army, was insultingly carried through the camp on the point of a lance.

This victory secured Severus in the possession of the throne. However, the Parthians, Persians, and some other neighbouring nations, took up arms, under a pretence of vindicating Niger's cause. The emperor marched against them in person, had many engagements with them, and obtained such signal victories over them, as enlarged the empire, and established peace in the east.

375 Albinus defeated and destroyed.

Niger being no more, Severus now turned his views against Albinus, whom he resolved by every means to destroy. For this purpose he sent assassins into Britain, under a pretence of bringing him letters, but in reality to dispatch him. Albinus being apprised of their designs, prevented their attempt by recurring to open force and proclaiming himself emperor. Nor was he without a powerful army to support his pretensions; of which Severus being sensible, bent his whole force to oppose him. From the east he continued his course across the straits of Byzantium, into the most western parts of Europe, without intermission. Albinus being informed of his approach, went over to meet him with his forces into Gaul; so that the campaign on both sides was carried on with great vigour. Fortune seemed for a while variable; but at last a decisive engagement came on, which was one of the most desperate recorded in the Roman history. It lasted from morning till night, without any seeming advantage on either side; at length the troops of Severus began to fly, and he himself happening to fall from his horse, the army of Albinus cried out, Victory. But the engagement was soon renewed with vigour by Lætus, one of Severus's commanders, who came up with a body of reserve, designing to destroy both parties and make himself emperor. This attempt, though designed against both, turned out entirely to the advantage of Severus. He therefore again charged with such fury and exactness, that he soon plucked the victory from those who but a short time before seemed conquerors; and pursuing them into the city of Lyons, took Albinus prisoner, and cut off his head; treating his dead body with insults that could only flow from a mean and revengeful temper. All the senators who were slain in battle he ordered to be quartered, and such as were taken alive were immediately executed.

Having thus secured himself in possession of the empire, upon his return to Rome he loaded his soldiers with rewards and honours; giving them such privileges as strengthened his own power, while they destroyed that of the state. For the soldiers, who had hitherto showed the strongest inclination to an abuse of power, were now made arbiters of the fate of emperors; and we shall henceforward behold them setting them up, and dethroning them, at pleasure.

Being thus secure of his army, he resolved to give way to his natural turn for conquest, and to oppose his arms against the Parthians, who were then invading the frontiers of the empire. Having therefore previously given the government of domestic policy to one Plautianus, a particular favourite of his, to whose daughter he married his son Caracalla, he set out for the east, and prosecuted the war with his usual expedition and success. He forced submission from the king of Armenia, destroyed several cities in Arabia Felix, landed on the Parthian coasts, took and plundered the famous city Ctesiphon, marched back through Palestine and Egypt, and at length returned to Rome in triumph.

During this interval, Plautianus, who was left to direct the affairs of Rome, began to think of aspiring to the empire himself. Upon the emperor's return, he employed a tribune of the prætorian cohorts, of which he was the commander, to assassinate him, as likewise his son Caracalla. The tribune seemed cheerfully to undertake this dangerous office; but instead of going through with it, informed Severus of his favourite's treachery. He at first received it as an improbable story, and as the artifice of some one who envied his favourite's fortune. However, he was at last persuaded to permit the tribune to conduct Plautianus to the emperor's apartments. With this intent the tribune went and amused him with a pretended account of his killing the emperor and his son, desiring him, if he thought it fit to see them dead, to come with him to the palace. As Plautianus ardently desired their deaths, he readily gave credit to this relation; and following the tribune, he was conducted at midnight into the innermost recesses of the palace. But what must have been his disappointment, when, instead of finding the emperor lying dead, as he expected, he beheld the room lighted up with torches, and Severus, surrounded by his friends, prepared in array to receive him. Being asked by the emperor, with a stern countenance, what had brought him there at that unseasonable time? he was at first utterly confounded; wherefore, not knowing what excuse to make, he ingenuously confessed the whole, intreating forgiveness for what he had intended. The emperor seemed in the beginning inclined to pardon; but Caracalla his son, who from the earliest age showed a disposition to cruelty, spurned him away in the midst of his supplications, and with his sword ran him through the body.

Severus having escaped this danger, spent a considerable time in visiting some cities in Italy, permitting none of his officers to sell places of trust or dignity, and distributing justice with the strictest impartiality. He took such an exact order in managing his exchequer, that

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that, notwithstanding his great expences, he left more money behind him than any of his predecessors. His armies also were kept upon the most respectable footing; so that he feared no invasion. Being equally attentive to the preservation of all parts of the empire, he resolved to make his last expedition into Britain, where the Romans were in danger of being destroyed or compelled to fly the province. Wherefore, after appointing his two sons Caracalla and Geta joint successors in the empire, and taking them with him, he landed in Britain, to the great terror of such as had drawn down his resentment. Upon his progress into the country, he left his son Geta in the southern part of the province, which had continued in obedience, and marched with his son Caracalla against the Caledonians. In this expedition, his army suffered prodigious hardships in pursuing the enemy; they were obliged to hew their way through intricate forests, to drain extensive marshes, and form bridges over rapid rivers; so that he lost 50,000 men by fatigue and sickness. However, he supported all these inconveniences with the greatest bravery; and is said to have prosecuted his successes with such vigour, that he compelled the enemy to sue for peace; which they obtained, not without the surrender of a considerable part of their country. We must here observe, however, that the Picts and Caledonians are so often confounded together by historians, that many mistakes have thence arisen concerning the progress and conquests of the Romans in the north of Britain. But from the boundary formed by the famous wall of Severus (see *Severus's Wall*), we must conclude, that no part of Caledonia, properly so called, had been either on this or any other occasion ceded to him; and there is reason to believe, that he rather received checks from the people of that territory than was ever able to make any considerable impression upon them. Be this, however, as it may, after having made peace, and built his wall, he retired to York; where, partly through grief at the irreclaimable life of Caracalla, he found himself daily declining, having already lost the use of his feet. To add to the distress of his situation, he was informed that the soldiers had revolted, and declared his son emperor. In this exigence, he seemed once more to recal his natural vigour; he got himself immediately put into his litter, and commanded the new emperor, with the tribunes and centurions, to be brought before him. Though all were willing to court the favour of the young emperor, such was the authority of Severus, that none dared to disobey. They appeared before him confounded and trembling, and implored pardon upon their knees. Upon which, putting his hand to his head, he cried out, "Know, that it is the head that governs, and not the feet." However, soon perceiving his disorder to increase, and knowing that he could not outlive it, he called for poison; which being refused him, he loaded his stomach with food; which not being able to digest, it soon brought him to his end, in the 65th year of his age, after an active though cruel reign of about 18 years.

376 Expedition of Severus into Britain.

377 Serverus dies.

378 Caracalla and Geta succeed.

Caracalla and Geta being acknowledged as emperors by the army, began to show a mutual hatred to each other even before their arrival at Rome. Their only agreement was, in resolving to deify Severus their father; but soon after, each sought to attach the senate and army to his own particular interest. They were of very opposite dispositions: Caracalla was fierce and cruel to an extreme degree; Geta was mild and merciful; so that the city soon found the dangerous effects of being governed by two princes of equal power and contrary inclinations.

379 Geta murdered by Caracalla.

But this opposition was of no long continuance; for Caracalla being resolved to govern alone, furiously entered Geta's apartment, and, followed by ruffians, slew him in his mother's arms. Having committed this detestable murder, he issued with great haste from the palace, crying out, That his brother would have slain him; and that he was obliged, in self-defence, to retaliate the intended injury. He then took refuge among the prætorian cohorts, and in a pathetic tone began to implore their assistance, still making the same excuse for his conduct. To this he added a much more prevailing argument, promising to bestow upon them the largesses usually given upon the election of new emperors, and distributing among them almost all the treasures which had been amassed by his father. By such persuasives the soldiers did not hesitate to proclaim him sole emperor, and to stigmatize the memory of his brother Geta as a traitor and an enemy to the commonwealth. The senators were soon after induced, either through favour or fear, to approve what had been done by the army: Caracalla wept for the death of his brother whom he had slain; and, to carry his hypocrisy to the utmost extreme, ordered him to be adored as a god.

380 Who proved a most bloody tyrant.

Being now emperor, he went on to mark his course with blood. Whatever was done by Domitian or Nero fell short of this monster's barbarities. Lætus, who first advised him to murder his brother, was the first who fell a sacrifice to his jealousy. His own wife Plautina followed. Papinian, the renowned civilian, was defeated for refusing to write in vindication of his cruelty; answering the emperor's request, by observing, That it was much easier to commit a parricide than to defend it. He commanded all governors to be slain that his brother had appointed; and destroyed not less than 2000 persons who had adhered to his party. Whole nights were spent in the execution of his bloody decrees; and the dead bodies of people of all ranks were carried out of the city in carts, where they were burnt in heaps, without any of the ceremonies of a funeral. Upon a certain occasion, he ordered his soldiers to set upon a crowded audience in the theatre, only for discountenancing a charioteer whom he happened to favour. Perceiving himself hated by the people, he publicly said, that he could insure his own safety though not their love; so that he neither valued their reproaches nor feared their hatred.

381 His extravagant folly, cruelty, and treachery.

The safety which he so much built upon was placed in the protection of his soldiers. He had exhausted the treasury, drained the provinces, and committed a thousand acts of rapacity, merely to keep them stedfast in his interests; and being disposed to trust himself with them particularly, he resolved to lead them upon a visit through all the provinces of the empire. He first went into Germany; where, to oblige the natives, he dressed himself in the habit of their country. From thence he travelled into Macedonia, where he pretended to be a great admirer of Alexander the Great; and among other extravagancies caused a statue of that monarch to be made with two faces; one of which resembled

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sembled Alexander and the other himself. He was so corrupted by flattery, that he called himself *Alexander*; walked as he was told that monarch had walked; and, like him, bent his head to one shoulder. Shortly after, arriving at Lesser Asia and the ruins of Troy, as he was viewing the tomb of Achilles, he took it into his head to resemble that hero; and one of his freedmen happening to die at that time, he used the same ceremonies that were performed at the tomb of Patroclus. Passing then e into Egypt, he m ssacred in the most terrible manner the inhabitants of Alexandria, on account of the satires they composed on him, as is related under the article ALEXANDRIA.

Going from thence into Syria, he invited Artabanus king of Parthia to a conference; desiring his d ughter in mar iage, and promising him the most honourable protection. In consequence of this the king met him on a spacious plain, unarmed, and only attended with a vast concourse of his nobles. This was what Caracalla desired. Regardless of his promise, or the law of nations, he instantly surrounded him with armed troops, let in wild beasts among his attendants, and made a most terrible slaughter among them; Artabanus himself escaping with the utmost difficulty. For this vile treachery he obtained from the senate the surname of *Parthicus*.

382 Marries his father's wife.

Upon his return towards Rome, it would seem as if his vices were inexhaustible; for having been guilty of parricide, he now resolved to marry the mother of Geta whom he had slain. It happened that one day seeing her drop her veil, which disclosed her naked bosom, which was extremely beautiful, he told her, that he would possess those charms he beheld, if it were lawful. To this unnatural request she hesitated not to answer, that he might enjoy all things who possessed all. Whereupon, setting aside all duty and respect for his deceased father, he celebrated his nuptials with her in public, totally disregarding the censures and the sarcasms of mankind.

However, though he disregarded shame, he was not insensible to fear. He was ever uneasy in the consciousness of being universally hated; and was continually consulting astrologers concerning what death he should die. Among others, he sent one of his confidants, named *Maternianus*, with orders to consult all the astrologers in the city concerning his end. Maternianus considered this as a proper time to get rid of Macrinus, the emperor's principal commander in Mesopotamia; a man who was daily supplanting him in his master's favour. He therefore informed him by letter, as if from the astrologers, that Macrinus had a design against his life; and they consequently advised him to put the conspirator to death. This letter was sent sealed, and made up, amongst many others, to be conveyed with the greater secrecy, and delivered to the emperor as he was preparing for a chariot race. However, as it never was his custom to interrupt his pleasures for his business, he gave the packet to Macrinus to read over, and to inform him of the contents when more at leisure. In perusing these letters, when Macrinus came to that which regarded himself, he was unable to contain his surprise and terror. His first care was, to reserve the letter in question to himself, and to acquaint the emperor only with the substance of the rest. He then set about the most probable means of compassing his death, by which alone he could expect any safety. At length he determined to apply to one Martialis, a man of great strength, and a centurion of the guards, who hated the emperor from various motives; particularly for the death of a brother, whom Caracalla had ordered to be slain. Him therefore Macrinus exhorted to revenge his brother's death, by killing the tyrant, which he might easily effect, as being always so near his person. Martialis readily undertook the dangerous task; being willing to meet death himself, so he might obtain his desire of seeing the tyrant expire before him. Accordingly, as the emperor was riding out one day near a little city called *Carræ*, he happened to withdraw himself privately, upon a natural occasion, with only one page to hold his horse. This was the opportunity Martialis had so long and ardently desired; wherefore running to him as if he had been called, he stabbed the emperor in the back, so that he died immediately. Martialis unconcernedly returned to his troop; but retiring by insensible degrees, he endeavoured to secure himself by flight. But his companions soon missing him, and the page giving information of what had been done, he was pursued by the German horse and cut in pieces.

383 He is murdered.

During the reign of this execrable tyrant, which continued six years, the empire was every day declining; the soldiers were entirely masters of every election; and as there were various armies in different parts, so there were as many interests all opposite to each other. Caracalla, by satisfying their most unreasonable appetites, destroyed all discipline among them, and all subordination in the state.

[383] Macrinus succeeds.

The soldiers, now without an emperor, after a suspense of two days, fixed upon Macrinus, who took all possible methods to conceal his being privy to Caracalla's murder. The senate confirmed their choice shortly after; and likewise that of his son Diadumenus, whom he took as a partner in the empire. Macrinus was 53 years old when he entered upon the government of the empire. He was of obscure parentage; some say by birth a Moor, who by the mere rotation of office, being first made præfect of the prætorian bands, was now, by treason and accident, called to fill the throne. We are told but little of this emperor, except his engaging in a bloody though undecided battle with Artabanus king of Parthia, who came to take vengeance for the injury he had sustained in the late reign: however, this monarch finding his real enemy dead, was content to make peace, and returned into Parthia. Something is also said of the severity of this emperor's discipline; for to such a pitch of licentiousness was the Roman army now arrived, that the most severe punishments were unable to restrain the soldiers; and yet the most gentle inflictions were looked upon as severity. It was this rigorous discipline, together with the artifices of Mæsa, grandmother to Heliogabalus the natural son of Caracalla, that caused the emperor's ruin. Heliogabalus was priest of a temple dedicated to the Sun, in Emesa, a city of Phœnicia; and though but 14 years old was greatly loved by the army for the beauty of his person, and the memory of his father, who they still considered as their greatest benefactor. This was soon perceived by the grandmother; who being very rich in gold and jewels, gave liberal presents among them, while they frequently repaired to the temple, both

384 Heliogabalus revolts against him.

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both from the garrison in the city and the camp of Macrinus. This intercourse growing every day more frequent, the soldiers, being disgusted with the severities of their present emperor, began to think of placing Heliogabalus in his stead. Accordingly, sending for him to their camp, he was immediately proclaimed; and such were the hopes of his virtues, that all men began to affect his interests.

Macrinus, who at this time was pursuing his pleasures at Antioch, gave but little attention to the first report; only sending his lieutenant Julian, with some legions, to quell the insurrection. However, these, like the rest, soon declared for Heliogabalus, and slew their general. It was then that Macrinus found he had treated the rebellion too slightly; he therefore resolved, with his, son, to march directly against the seditious legions, and force them to their duty. Both parties met on the confines of Syria: the battle was for some time furious and obstinate; but at last Macrinus was overthrown, and obliged to seek safety by flight. His principal aim was to get to Rome, where he knew his presence was desired; wherefore he travelled through the provinces of Asia Minor with the utmost expedition and privacy, but unfortunately fell sick at the city of Chalcedon. There those who were sent in pursuit, overtook and put him to death, together with his son Diadumenus, after a short reign of one year and two months.

385 Macrinus defeated and put to death.

The senate and citizens of Rome being obliged to submit to the appointment of the army as usual, Heliogabalus ascended the throne at the age of 14. One at so early an age, invested with unlimited power, and surrounded with flatterers, could be expected to act only as they thought proper to direct. This young emperor was entirely led by them; and being sensible that it was in his power to indulge all his appetites, he studied only their gratification. As he is described by historians, he appears a monster of sensuality. His short life therefore is but a tissue of effeminacy, lust, and extravagance. He married, in the small space of four years, six wives, and divorced them all. He built a temple to the sun; and willing that his god should have a wife as well as himself, he married him to Pallas, and shortly after to the moon. His palace was a place of rendezvous for all the prostitutes of Rome, whom he frequently met naked, calling them *his fellow soldiers, and companions in the field.* He was so fond of the sex, that he carried his mother with him to the senate-house, and demanded that she should always be present when matters of importance were debated. He even went so far as to build a senate-house for women, with suitable orders, habits, and distinctions, of which his mother was made president. They met several times; all their debates turning upon the fashions of the day, and the different formalities to be used in giving and receiving visits. To these follies, he added great cruelty and boundless prodigality; so that he was heard to say, that such dishes as were cheaply obtained were scarcely worth eating. His suppers therefore generally cost 6000 crowns, and often 60,000. He was always dressed in cloth of gold and purple, enriched with precious stones, and yet never wore the same habit twice. His palace, his chambers, and his beds, were all furnished of the richest stuffs, covered with gold and jewels. Whenever he took horse, all the way between his apartment and the place of mounting was covered with gold and silver dust strewn at his approach.

386 Heliogabalus worse than any of his predecessors.

These excesses were soon perceived by his grandmother Mæsa, whose intrigues had first raised him to the throne; so that she thought to lessen his power by dividing it. For this purpose, under a pretence of freeing him from the cares of public business, she persuaded him to adopt his cousin-german, Alexander, as his successor; and likewise to make him his partner in the consulship. Heliogabalus, having thus raised his cousin, had scarcely given him his power, when he wished again to take it away; but the virtues of this young prince had so greatly endeared the people and the army to him, that the attempt had like to have been fatal to the tyrant himself The prætorian soldiers mutinying, attempted to kill him as he was walking in his gardens; but he escaped, by hiding himself from their fury. However, upon returning to their camp, they continued the sedition; requiring that the emperor should remove such persons from about him as oppressed the subject, and contributed to contaminate him. They required also the being permitted to guard the young prince themselves, and that none of the emperor's favourites or familiars should ever be permitted to converse with him. Heliogabalus was reluctantly obliged to comply; and conscious of the danger he was in, made preparations for death, when it should arrive, in a manner truly whimsical and peculiar. He built a lofty tower with steps of gold and pearl, from whence to throw himself headlong in case of necessity. He also prepared cords of purple silk and gold to strangle himself with; he provided golden swords and daggers to stab himself with; and poison to be kept in boxes of emerald, in order to obtain what death he chose best. Thus fearing all things, but particularly suspicious of the designs of the senate, he banished them all out of the city: he next attempted to poison Alexander, and spread a report of his death; but perceiving the soldiers begin to mutiny, he immediately took him in his chariot to the camp, where he experienced a fresh mortification, by finding all the acclamations of the army directed only to his successor. This not a little raised his indignation, and excited his desire of revenge. He returned towards the city, threatening the most severe punishments against those who had displeased him, and meditating fresh cruelties. However, the soldiers were unwilling to give him time to put his designs in execution: they followed him directly to his palace, pursued him from apartment to apartment, and at last found him concealed in a privy; a situation very different from that in which he expected to die. Having dragged him from thence through the streets, with the most bitter invectives, and having dispatched him, they attempted once more to squeeze his pampered body into a privy; but not easily effecting this, they threw it into the Tiber, with heavy weights, that none might afterwards find or give it burial. This was the miserable and ignominious death of Heliogabalus, in the 18th year of his age, after a detestable reign of four years. His mother also was slain at the same time by the soldiers; as were also many of the opprobrious associates of his criminal pleasures.

387 Adopts Alexander, and takes him for his colleague.

388 Is murdered by the soldiers.

Alexander being, without opposition, declared emperor, the senate, in their usual method of adulation, were for conferring new titles upon him; but he modestly

389 Virtues of Alexander.

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destly declined them all, alleging, that titles were only honourable when given to virtue, not to station. This outset was a happy omen of his future virtues; and few princes in history have been more commended by contemporaries, or indeed more deserved commendation. To the most rigid justice he added the greatest humanity. He loved the good, and was a severe reprover of the lewd and infamous. His accomplishments were equal to his virtues. He was an excellent mathematician, geometrician, and musician; he was equally skilled in painting and sculpture; and in poetry few of his time could equal him. In short, such were his talents, and such the solidity of his judgment, that though but 16 years of age, he was considered as a wise old man.

The first part of his reign was spent in a reformation of the abuses of his predecessor. He restored the senators to their rank; nothing being undertaken without the most sage advisers, and most mature deliberation. Among the number of his advisers was his mother Mammæa; a woman eminent for her virtues and accomplishments, and who made use of her power as well to secure her son the affections of his subjects, as to procure them the most just administration. He was a rigid punisher of such magistrates as took bribes, saying, That it was not enough to deprive such of their places; for their trusts being great, their lives, in most cases, ought to pay for a breach of them. On the contrary, he thought he could never sufficiently reward such as had been remarkable for their justice and integrity, keeping a register of their names, and sometimes asking such of them as appeared modest and unwilling to approach him, why they were so backward in demanding their reward, and why they suffered him to be in their debt? His clemency extended even to the Christians, who had been punished in the former reigns with unrelenting barbarity. Upon a contest between them and a company of cooks and vintners, about a piece of public ground, which the one claimed as a place for public worship, and the other for exercising their respective trades, he decided the point by his rescript in these words: "It is better that God be worshipped there in any manner, than that the place should be put to uses of drunkenness and debauchery."

390 Restores the affairs of the empire,

His abilities in war were not inferior to his assiduity in peace. The empire, which from the remissness and debauchery of the preceding reigns now began to be attacked on every side, wanted a person of vigour and conduct to defend it. Alexander faced the enemy, wherever the invasion was most formidable, and for a short time deferred its ruin. His first expedition, in the tenth year of his reign, was against the Parthians and Persians, whom he opposed with a powerful army.—The Persians were routed in a decisive engagement with great slaughter; the cities of Ctesiphon and Babylon were once more taken, and the Roman empire was restored to its former limits. Upon his return to Antioch, his mother Mammæa sent for the famous Origen, to be instructed by him in the principles of Christianity; and after discoursing with him for some time upon the subject, dismissed him, with a proper safeguard, to his native city of Alexandria. About the same time that Alexander was victorious in the East, Furius Celsus, his general, obtained a signal victory over the Mauritanians in Africa. Varius Macrinus was successful in Germany, and Junius Palmatus returned with conquest from Armenia. However, the number of these victories only hastened the decline of the empire, which was wasted by the exertion of its own strength, and was now becoming little more than a splendid ruin.

About the 13th year of his reign, the Upper Germans, and other northern nations, began to pour down immense swarms of people upon the more southern parts of the empire. They passed the Rhine and the Danube with such fury, that all Italy was thrown into the most extreme consternation. The emperor, ever ready to expose himself for the safety of his people, made what levies he could, and went in person to stem the torrent; which he speedily effected. It was in the course of his successes against the enemy, that he was cut off by a mutiny among his soldiers. The legions encamped about Moguntia, having been abominably corrupted during the reign of Heliogabalus, and trained up in all kinds of rapine and disobedience, required the most strict command. Alexander could neither endure their tumultuary obedience, nor they his regular discipline. His own faults, and those of his mother Mammæa, were objected against him. They openly exclaimed, That they were governed by an avaricious woman, and a mean-spirited boy; and resolved upon electing an emperor capable of ruling alone. In this general revolt, Maximinus, an old and experienced commander, held frequent conferences with the soldiers, and enflamed the sedition. At length, being determined to dispatch their present emperor, they sent an executioner into his tent; who immediately struck off his head, and, shortly after, that of his mother. He died in the 29th year of his age, after a prosperous reign of thirteen years and nine days.

391 is murdered.

392 Succeeded by Maximinus, a man of gigantic stature and extraordinary strength.

The tumults occasioned by the death of Alexander being appeased, Maximinus, who had been the chief promoter of the sedition, was chosen emperor. This extraordinary man, whose character deserves particular attention, was born of very obscure parentage, being the son of a poor herdsman of Thrace. In the beginning he followed his father's profession, and only exercised his personal courage against the robbers who infested the part of the country in which he lived. Soon after, his ambition increasing, he left his poor employment, and enlisted in the Roman army; where he soon became remarkable for his great strength, discipline, and courage. This gigantic man was no less than eight feet and a half high; he had a body and strength corresponding to his size, being not less remarkable for the magnitude than the symmetry of his person. His wife's bracelet usually served him for a thumb-ring: and his strength was so great, that he was able to draw a carriage which two oxen could not move. He could strike out a horse's teeth with a blow of his fist, and break its thigh with a kick. His diet was as extraordinary as the rest of his endowments; he generally ate 40 pounds weight of flesh every day, and drank six gallons of wine, without committing any debauch in either. With a frame so athletic, he was possessed of a mind undaunted in danger, and neither fearing nor regarding any man. The first time he was made known to the emperor Severus, was upon his celebrating games on the birth-day of his son Geta. Maximinus was then a rude countryman, and requested the emperor to be permitted

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to contend for the prizes which were distributed to the best runners, wrestlers, and boxers, of the army. Severus, unwilling to infringe the military discipline, would not permit him at first to combat, except with slaves, against whom his strength appeared astonishing. He overcame 16 in running, one after the other: he then kept up with the emperor on horseback; and having fatigued him in the course, he was opposed to seven of the most active soldiers, and overcame them with the greatest ease. From that time he was particularly noticed, and taken into the emperor's body guards, in which his assiduity and prompt obedience were particularly remarkable. In the reign of Caracalla, he was made a centurion, and distinguished himself in this station by his strict attention to the morals and discipline of those he commanded. When made a tribune, he still retained the hard simplicity of his life; ate as the meanest centinel; spent whole days in exercising his troops; and would now and then himself wrestle with eight or ten of the strongest men in the army, whom he threw with scarce any effort. Being thus become one of the most remarkable men in the empire, both for courage, discipline, and personal activity, he gave, shortly after, a very high instance of his unshaken fidelity: for when Macrinus was made emperor, he refused to serve under a prince that had betrayed his sovereign; and retired to Thrace, his native country, where he followed commerce, and purchased some lands, content with privacy rather than a guilty dependence. Upon the accession of Heliogabalus to the throne, this bold veteran once more returned to the army; but was, in the very beginning, disgusted at the base effeminacy of the emperor; who, hearing amazing instances of his strength, asked him, if he were equally capable in combats of another nature? This lewd demand was so little suitable to the temper of Maximinus, that he instantly left the court. Upon the death of Heliogabalus, he again returned to Rome, and was received with great kindness by Alexander, who particularly recommended him to the senate, and made him commander of the fourth legion, which consisted of new raised soldiers. Maximinus gladly accepted of this charge, and performed his duty with great exactness and success, setting an example of virtue and discipline to all the commanders of the army. Nor was his valour less apparent against the Germans, whither he was sent with his legion; so that he was unanimously considered as the boldest, bravest, most valiant, and most virtuous soldier in the whole empire. He soon, however, forfeited all these justly merited titles, when he was raised to the throne; and, from being the most loved commander in the army, he became the most cruel tyrant upon earth. Yet in fact, his former virtues were all of the severe and rigid kind, which, without any education, might very easily degenerate into tyranny; so that he might have mistaken his succeeding cruelty for discipline, and his severity for justice. However this be, Maximinus is considered as one of the greatest monsters of cruelty that ever disgraced power; and, fearful of nothing himself, he seemed to sport with the terrors of all mankind.

393 Becomes a cruel tyrant.

He began his reign, by endeavouring to force obedience from every rank of people, and by vindicating his authority by violence. The senate and people of Rome were the first that incurred his resentment. They utterly refusing to confirm the election of the army, he was the first emperor who reigned without their concurrence or approbation. However, he seemed regardless of their opposition, proceeding to secure his election by putting all such to death as had been raised by his predecessors. The Christians also, having found favour in the former reign, felt the weight of his resentment; and were persecuted in several parts of the empire, particularly in those where he himself resided. His cruelty likewise extended to the rich, whose lives and estates became a frequent sacrifice to avarice and suspicion. But what appears still a more extraordinary instance of his cruelty, being ashamed of the meanness of his extraction, he commanded all such as were best acquainted with him and his parentage to be slain, although there were some among the number that had received him in his low condition.

394 His success in war.

However, his cruelties did not retard his military operations, which were carried on with a spirit becoming a better monarch. He overthrew the Germans in several battles, wasted all their country with fire and sword for 400 miles together, and set a resolution of subduing all the northern nations as far as the ocean. In these expeditions, in order to attach the soldiers more firmly to him, he increased their pay; and in every duty of the camp, he himself took as much pains as the meanest centinel in his army, showing incredible courage and assiduity. In every engagement, where the conflict was hottest, Maximinus was always seen fighting there in person, and destroying all before him: for, being bred a barbarian, he considered it as his duty to combat as a common soldier, while he commanded as a general.

395 Conspiracies formed against him.

In the mean time, his cruelties had so alienated the minds of his subjects, that several conspiracies were secretly aimed against him. Magnus, a consular person, and some others, had plotted to break down a wooden bridge, as soon as the emperor had passed it, and thus to abandon him to the enemy. But this being discovered, gave Maximinus an opportunity of indulging his natural severity, upon this pretext alone causing above 4000 to be slain. Shortly after, some of Alexander's old soldiers withdrawing themselves from the camp, proclaimed one Quarcianus as emperor, who had been lately disgusted at Maximinus for being dismissed from employment. The soldiers, in fact, constrained him to accept of the dangerous superiority to which he was exposed: and shortly after, in the spirit of the times, the person who had been the promoter of his advancement murdered him in his bed, and carried his head to Maximinus; who received him kindly at first, but soon put him to a cruel death, for his complicated guilt of treason and treachery.

These partial insurrections were soon after followed by a spirit of general discontent throughout all the empire. The provinces of Africa were the first that showed their detestation of the tyrant, whose extortions and cruelties among them were become insupportable. They first slew his procurator; and afterwards considering how dangerous a crime they had committed, they resolved to throw off all expectations of pardon, and create a new emperor. Gordian was then proconsul of Africa, a person of great fame for his virtues, and highly reverenced for a blameless life of near 80. Him, therefore, they determined to elect; and accordingly

396 Gordian proclaimed emperor.

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cordingly the soldiers and natives assembling together, tumultuously entered his house, resolved to put their design in execution. Gordian, who at first supposed they were come to kill him, being made sensible of their intentions, utterly refused their offer, alleging his extreme age, and Maximinus's power. But all his opposition was vain: they constrained him to accept of the proffered dignity; and he, with his son Gordian, who was 46 years of age, were declared emperors. Being thus raised contrary to his inclination, the old man immediately wrote to the senate, declaring that he had unwillingly accepted of the empire, and would only keep his authority till he had freed it from the tyranny of its present oppressor. The senate very joyfully confirmed his election, adjudging Maximinus as an enemy and traitor to the state. The citizens also showed an equal zeal in the cause: they flew upon such as were the reputed friends of Maximinus, and tore them in pieces; even some who were innocent falling a sacrifice to the blind rage of the multitude. So great an alteration being made in the city against the interests of Maximinus, the senate were resolved to drive the opposition to the extreme; and accordingly made all necessary preparations for their security, ordering Maximinus's governors to be displaced, and commanding all the provinces to acknowledge Gordian for emperor. This order was differently received in different parts, as people were affected to one or the other party: in some provinces the governors were slain; in others, the messengers of the senate; so that all parts of the empire felt the consequences of the civil war.

397 Rage of Maximinus on hearing the news.

In the mean time, when Maximinus was informed of these charges against him, his rage appeared ungovernable. He roared like a savage beast, and violently struck his head against the wall, showing every instance of ungovernable distraction. At length his fury being somewhat subsided, he called his whole army together; and, in a set speech, exhorted them to revenge his cause, giving them the strongest assurances that they should possess the estates of all such as had offended. The soldiers unanimously promised to be faithful: they received his harangue with their usual acclamations; and, thus encouraged, he led them towards Rome, breathing nothing but slaughter and revenge. However, he found many obstacles to his impetuosity; and, though he desired nothing so much as dispatch, his marches were incommodious and slow. The tumultuous and disobedient armies of the empire were at present very different from the legions that were led on by Sylla or Cæsar; they were loaded with baggage, and followed by slaves and women, rather resembling an eastern caravan, than a military battalion. To these inconveniences also was added the hatred of the cities through which he passed, the inhabitants all abandoning their houses upon his approach, and securing their provisions in proper hiding-places. However, in this complication of inconveniences and misfortunes, his affairs began to wear a favourable appearance in Africa: for Capelianus, the governor of Numidia, raised a body of troops in his favour, and marched against Gordian, towards Carthage; where he fought the younger Gordian, slew him, and destroyed his army. The father, hearing of the death of his son, together with the loss of the battle, strangled himself in his own girdle. Capelianus pursuing his victory, entered Carthage; where he gave a loose to pillage and slaughter, under a pretence of revenging the cause of Maximinus. The news of these successes was soon brought to the emperor, who now increased his diligence, and flattered himself with a speedy opportunity of revenge. He led on his large army by hasty journies into Italy, threatening destruction to all his opposers, and ardently wishing for fresh opportunities of slaughter.

398 Gordian defeated and killed.

Nothing could exceed the consternation of the senate upon the news of this defeat. They now saw themselves not only deprived of the assistance of Gordian and his son, on whom they greatly relied; but also opposed by two formidable tyrants, each commanding a victorious army, directly marching towards Rome, and meditating nothing but vengeance. In this afflicting exigence, they, with great solemnity, met at the temple of Jupiter, and after the most mature deliberations, chose Pupienus and Balbinus emperors conjointly. These were men who had acquired the esteem of the public both in war and peace, having commanded armies, and governed provinces, with great reputation; and being now appointed to oppose Maximinus, they made what levies they could, both in Rome and the country. With these, Pupienus marched to stop the progress of the invaders, leaving the city to a fresh and unlooked for calamity. This was occasioned by two of Maximinus's soldiers, who, entering the senate-house, were slain by two senators. This quickly gave offence to the body of the prætorian soldiers, who instantly resolved to take revenge, but were opposed by the citizens; so that nothing was seen throughout Rome, but tumult, slaughter, and cruelty. In this universal confusion, the calamity was increased by the soldiers setting the city on fire, while the wretched inhabitants were combating each other in the midst of the flames.

399 Pupienus and Balbinus proclaimed emperors.

Nevertheless, Maximinus himself, in whose favour these seditions were promoted, did not seem to be more fortunate. Upon being informed of the new election of emperors, his fury was again renewed, and he passed the Alps, expecting, upon entering Italy, to refresh his fatigued and famished army in that fertile part of the country. But in this he was entirely disappointed; the senate had taken such care to remove all kinds of sustenance to fortified places, that he still found himself reduced to his former necessities, while his army began to murmur for want. To this another disappointment was added shortly after: for approaching the city of Aquileia, which he expected to enter without any difficulty, he was astonished to find it prepared for the most obstinate resistance, and resolved to hold out a regular siege. This city was well fortified and populous, and the inhabitants greatly averse to Maximinus's government; but what added still more to its strength, it was commanded by two excellent generals, Crispinus and Menephilis, who had so well furnished it with men and ammunition, that Maximinus found no small resistance, even in investing the place. His first attempt was, to take the city by storm; but the besieged threw down such quantities of scalding pitch and sulphur upon his soldiers, that they were unable to continue the assault. He then determined upon a blockade; but the inhabitants were so resolute, that even the old men and children were seen combating upon the walls, while the women cut off their hair to furnish the soldiers with bow-

400 Aquileia besieged by Maximinus.

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strings. Maximinus's rage at this unexpected opposition was now ungovernable: having no enemy to wreck his resentment upon, he turned it against his own commanders. He put many of his generals to death, as if the city had held out through their neglect or incapacity, while famine made great depradations upon the rest of his army. Nothing now appeared on either side to terminate the contest, except the total destruction of either. But a mutiny in Maximinus's own army a while rescued the declining empire from destruction, and saved the lives of thousands. The soldiers being long harassed by famine and fatigue, and hearing of revolts on every side, resolved to terminate their calamities by the tyrant's death. His great strength, and his being always armed, were, at first, the principal motives to deter any from assassinating him; but at length having made his guards accomplices in their design, they set upon him, while he slept at noon in his tent, and slew both him and his son, whom he had made his partner in the empire, without any opposition, after an usurpation of about three years, and in the 65th year of his age.

401 Is assassinated.

The tyrant being dead, and his body thrown to the dogs and birds of prey, Pupienus and Balbinus continued for some time emperors without opposition But the prætorian soldiers, who had long been notorious for mutiny and treason, soon resolved on further change. Nor did the dissensions between the new made emperors themselves a little contribute to their downfall: for though both were remarkable for wisdom and age, yet they could not restrain the mutual jealousy of each other's power. Pupienus claimed the superiority from his great experience; while Balbinus was equally aspiring upon account of his family and fortune.

In this ill-judged contest, the prætorian soldiers, who were enemies to both, set upon them in their palace, at a time their guards were amused with seeing the Capitoline games. Pupienus perceiving their tumultuous approach, sent with the utmost speed for assistance from his colleague; but he, out of a culpable suspicion that something was designed only against himself, refused to send such of the German guards as were next his person. Thus the seditious soldiers found an easy access to both the emperors apartments; and dragging them from the palace towards the camp, slew them both, leaving their dead bodies in the streets, as a dreadful instance of their sedition.

402 And likewise Pupienus and Balbinus.

In the midst of this sedition, as the mutineers were proceeding along, they by accident met Gordian, the grandson of him who was slain in Africa, and declared him emperor on the spot. The senate and people had been long reduced to the necessity of suffering their emperors to be nominated by the army; so that all they could do in the present instance was to confirm their choice. This prince was but 16 years old when he began his reign, but his virtues seemed to compensate for the want of experience. His principal aims were, to unite the opposing members of the government, and to reconcile the soldiers and citizens to each other. His learning is said to have been equal to his virtues; and we are assured that he had 62,000 books in his library. His respect for Misithæus, his governor and instructor, was such, that he married his daughter, and profited by his counsels in all the critical circumstances of his reign.

403 Young Gordian proclaimed emperor.

The first four years of this emperor's reign were attended with the utmost prosperity; but in the fifth he was alarmed with accounts from the east, that Sapor, king of Persia, had furiously invaded the confines of the Roman empire. and having taken Antioch, had pillaged Syria, and all the adjacent provinces. Besides the Persians, the Goths also invaded the empire on their side, pouring down like an inundation from the north, and attempting to fix their residence in the kingdom of Thrace. To oppose both these invasions, Gordian prepared an army; and having gained some victories over the Goths, whom he obliged to retire, he turned his arms against the Persians, whom he defeated upon several occasions, and forced to return home with disgrace. In gaining these advantages, Misithæus, whom he had made prætorian præfect, had the principal share; but he dying soon after (as it is supposed, being poisoned by Philip an Arabian, who was appointed his successor), the fortunes of Gordian seemed to die with him. The army began to be no longer supplied with provisions as usual; murmurs were heard to prevail, and these were artfully fomented by Philip. Things thus proceeding from bad to worse, Philip was at first made his equal in the command of the empire; shortly after, invested with the sole power; and, at length, finding himself capable of perpetrating his long meditated cruelty, Gordian was, by his order, slain, in the 22d year of his age, after a successful reign of near six years.

404 His success against the barbarians.

405 Is murdered by Philip, who succeeds.

Philip having thus murdered his benefactor, was so fortunate as to be immediately acknowledged emperor by the army. The senate also, though they seemed at first to oppose his power, confirmed his election, and gave him, as usual, the title of *Augustus*. Philip was about 40 years old when he came to the throne; being the son of an obscure Arabian, who had been captain of a band of robbers. Upon his exaltation, he associated his son, a boy of six years of age, as his partner in the empire; and, in order to secure his power at home, made peace with the Persians, and marched his army towards Rome. On his way, having conceived a desire to visit his native country of Arabia, he built there a city called *Philippopolis;* and from thence returning to Rome, he was received as emperor, and treated with all the marks of submission, though not of joy. To put the people in good humour, he caused the secular games to be celebrated, with a magnificence superior to any of his predecessors, it being just 1000 years after the building of the city. Upon occasion of these games, we are told that both Philip and his son were converted to Christianity. However this be, a murderer and an ungrateful usurper does no great honour to whatever opinion he may happen to embrace We have little account of the latter part of his reign in the wretched and mutilated histories of the times; we only learn, that the Goths having invaded the empire, Marinus, Philip's lieutenant, who was sent against them, revolted. and caused himself to be declared emperor. This revolt, however, was but of short duration; for the army which had raised him repented of their rashness, deposed him with equal levity, and put him to death. Decius was the person whom Philip appointed to command in the room of the revolting general. The chief merit of Decius with the emperor was, that when Marinus had rebelled, he averred in the senate, That the traitor's presumption would be very shortly

406 The thousandth year of Rome.

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shortly his ruin; which, when it happened accordingly, Philip appointed hi to succeed in the command of the rebellious army. Decius, who was a man of great subtility, being entrusted with so much power, upon arriving at the army, found that the soldiers were resolved on investing him with the supreme authority He therefore seemed to suffer their importunities, as if through constraint; and, in the mean time, sent Philip word, that he had unwillingly assumed the title of emperor, the better to secure it for the rightful possessor; adding that he only looked for a convenient opportunity of giving up his pretensions and title together. Philip knew mankind too well, to rely upon such professions; he therefore got together what forces he could from the several provinces, and led them forward towards the confines of Italy. However, the army was scarce arrived at Verona, when it revolted in favour of Decius, and setting violently upon Philip, a centinel, with one blow, cut off his head, or rather cleaved it asunder, separating the under jaw from the upper. Such was the deserved death of Philip, in the 45th year of his age, after a reign of about five years; Decius being universally acknowledged as his successor, A. D. 248.

407 Philip murdered, and is succeeded by Decius.

The activity and wisdom of Decius in some measure stopped the hastening decline of the Roman empire. The senate seemed to think so highly of his merits, that they voted him not inferior to Trajan; and indeed he seemed in every instance to consult their dignity in particular, and the welfare of all inferior ranks of people. He permitted them to choose a censor, as was the custom in the flourishing times of Rome; and Valerian, his general, a man of such strict morals that his life was said to be a continual censorship, was chosen to that dignity.—But no virtues could now prevent the approaching downfall of the state; the obstinate disputes between the Pagans and the Christians within the empire, and the unceasing irruptions of barbarous nations from without, enfeebled it beyond the power of a remedy. To stop these, a persecution of the Christians, who were now grown the most numerous body of the people, was impolitically, not to say unjustly begun; in which thousands were put to death, and all the arts of cruelty tried in vain to lessen their growing number. This persecution was succeeded by dreadful devastations from the Goths, particularly in Thrace and Mœsia, where they had been most successful. These irruptions Decius went to oppose in person; and coming to an engagement with them, slew 30,000 of the barbarians in one battle. However, being resolved to pursue his victory, he was, by the treachery of Gallus his own general, led into a defile, where the king of the Goths had secret information to attack him. In this disadvantageous situation, Decius first saw his son killed with an arrow, and soon after his whole army put to the rout Wherefore, resolving not to survive his loss, he put spurs to his horse, and instantly plunging into a quagmire, was swallowed up, and his body could never be found after. He died in the 50th year of his age, after a short reign of two years and six months; leaving the character of an excellent prince, and one capable of averting the destruction of the empire, if human means could have effected it.

408 Is overcome, and killed by the Goths.

409 Succeeded by Gallus.

Gallus, who had thus betrayed the Roman army, had address enough to get himself declared emperor by that part of it which survived the defeat; he was 45 years old when he began to reign, and was descended from an honourable family in Rome. He bought a dishonourable peace from the enemies of the state, agreeing to pay a considerable annual tribute to the Goths, whom it was his duty to repress. Having thus purchased a short remission from war, by the disgrace of his country, he returned to Rome, to give a loose to his pleasures, regardless of the wretched situation of the empire.

Nothing can be more deplorable than the state of the Roman provinces at this time. The Goths and other barbarous nations, not satisfied with their late bribes to continue in peace, broke in upon the eastern parts of Europe. On the other side, the Persians and Scythians committed unheard of ravages in Mesopotamia and Syria. The emperor, regardless of every national calamity, was lost in debauch and sensuality at home; and the Pagans were allowed a power of persecuting the Christians through all parts of the state; these calamities were succeeded by a pestilence, that seemed to have in general spread over every part of the earth, and which continued raging for several years in an unheard of manner; and all these by a civil war, which followed shortly after, between Gallus and his general Æmilianus, who having gained a victory over the Goths, was proclaimed emperor by his conquering army. Gallus hearing this, was soon roused from the intoxications of pleasure, and prepared to oppose his dangerous rival. Both armies met in Mœsia, and a battle ensued, in which Æmilianus was victorious, and Gallus with his son were slain. His death was merited, and his vices were such as to deserve the detestation of posterity. He died in the 47th year of his age, after an unhappy reign of two years and four months, in which the empire suffered inexpressible calamities. Æmilianus, after his victory over Gallus, expected to be acknowledged emperor; but he soon found himself miserably disappointed. The senate refused to acknowledge his claims; and an army that was stationed near the Alps chose Valerian, their own commander, to succeed to the throne. In consequence of this, Æmilianus's soldiers began to consider their general as an obstacle to the universal tranquillity, and slew him in order to avoid the mischiefs of a civil war.

410 Miserable state of the empire.

Valerian being thus universally acknowledged as emperor, although arrived at the age of 70, set about reforming the state with a spirit that seemed to mark a good mind and unabated vigour. But reformation was then grown almost impracticable. The disputes between the Pagans and Christians divided the empire as before; and a dreadful persecution of the latter ensued. The northern nations overran the Roman dominions in a more formidable manner than ever; and the empire began to be usurped by a multitude of petty leaders, each of whom, neglecting the general state, set up for himself. To add to these calamities, the Persians, under their king Sapor, invaded Syria; and coming into Mesopotamia, took the unfortunate Valerian prisoner, as he was making preparations to oppose them. Nothing can exceed the indignities, as well as the cruelties, which were practised upon this unhappy monarch, thus fallen into the hands of his enemies. Sapor, we are told, always used him as a footstool for mounting his horse; he added the bitterness of ridicule to his insults, and

411 Valerian taken prisoner, and cruelly insulted by the Persians.

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and usually observed, That an attitude like that to which Valerian was reduced, was the best statue that could be erected in honour of his victory. This horrid life of insult and sufferance continued for seven years, and was at length terminated by the cruel Persian's commanding his prisoner's eyes to be plucked out, and afterwards causing him to be flayed alive.

412 The empire invaded on all sides by the barbarians.

The news of the defeat of the Roman army by the Persians, and the captivity of Valerian no sooner reached the barbarous nations at war with Rome, than they poured on all sides into the Roman territories in incredible multitudes, threatening the empire, and Rome itself, with utter destruction. The Goths and Scythians ravaged Pontus and Asia, committing everywhere dreadful devastations; the Alemanni and Franks having overrun Rhætia, advanced as far as Ravenna; putting all to fire and sword; the Quadi and Sarmatians seized on great part of Dacia and Pannonia; while other barbarous nations, invading Spain, made themselves masters of Tarraco and other important places in that province. In the mean time Gallienus, the son of Valerian, having promised to revenge his father's captivity, and repress the barbarians, was chosen emperor without any opposition. He was at that time in Gaul; but hastened into Italy, from whence he drove out the barbarians, either by the terror of his approach, or by overcoming them in battle.—In Dacia and Pannonia, also, the barbarians were driven back by Regillianus, who commanded there, and who is said to have gained several victories in one day.

But in the mean time, one Ingenuus, a man of great reputation in war, and universally beloved both by the people and soldiery, caused himself to be proclaimed emperor in Pannonia, where he was generally acknowledged as well as in Mœsia. Gallienus no sooner heard of his revolt, than he marched from the neighbourhood of Ravenna, where he then was, into Illyricum, engaged Ingenuus, and put him to flight. Some authors tell us that Ingenuus was killed after the battle by his own soldiers; while others affirm, that he put an end to his own life to avoid falling into the hands of Gallienus, who used his victory with a cruelty hardly to be paralleled.

413 Monstrous cruelty of the new emperor Gallienus.

The following letter to Verianus Celer, one of his officers, will show the disposition of this emperor: "I shall not be satisfied (says he) with your putting to death only such as have borne arms against me, and might have fallen in the field: you must in every city destroy all the males, old and young; spare none who have wished ill to me; none who have spoken ill of me the son of Valerian, the father and brother of princes. Ingenuus emperor! Tear, kill, cut in pieces without mercy: you understand me; do then as you know I would do, who have written to you with my own hand." In consequence of these cruel orders, a most dreadful havock was made among that unhappy people; and, in several cities, not one male child was left alive. The troops who had formerly served under Ingenuus, and the inhabitants of Mœsia who had escaped the general slaughter, provoked by these cruelties, proclaimed Regillianus emperor. He was a Dacian by birth, descended, as was said, from the celebrated king Decebalus whom Trajan had conquered; and had, by several gallant actions, gained reputation in the Roman armies. After he was proclaimed emperor, he gained great advantages over the Sarmatians; but was soon after murdered by his own soldiers. These revolts were quickly followed by many others. Indeed it is not surprising, at a time when the reins of government were held with so loose a hand, that a crowd of usurpers should start up in every province of the empire. The great number of usurpers who pretended to the empire about this time have been distinguished by the name of the *thirty tyrants*. However, there were only 19; viz. Cyriades, Macrianus, Balista, Udenatus, and Zenobia in the east: in Gaul, and the western provinces, Posthumus, Lollianus, Victorinus and his mother Victoria, Marius, and Tetricus: in Illyricum, and on the confines of the Danube, Ingenuus, Regillianus, and Aureolus; in Pontus, Saturninus; in Isauria, Trebellianus; in Thessaly, Piso; in Achaia, Valens; in Egypt, Æmilianus; and in Africa, Celsus. Several of these pretenders to the empire, however, though branded with the opprobrious appellation of tyrants, were eminent examples of virtue, and almost all of them were possessed of a considerable share of vigour and ability. The principal reason assigned for their revolt was, the infamous character of Gallienus, whom neither officers nor soldiers could bear to serve. Many of them, however, were forced by the soldiers to assume the imperial dignity much against their will. "You have lost," said Saturninus to his soldiers when they invested him with the purple, "a very useful commander, and have made a very wretched emperor." The apprehensions of Saturninus were justified by the event. Of the 19 usurpers already mentioned, not one died a natural death; and in Italy and Rome Gallienus alone continued to be acknowledged emperor. That prince indeed honoured Odenatus prince of Palmyra with the title of *Augustus*, who continued to possess an independent sovereignty in the east all his lifetime, and on his death transmitted it to his wife Zenobia. See PALMYRA.

414 The thirty tyrants.

415 Fatal consequences of these usurpations.

The consequences of these numerous usurpations were the most fatal that can be conceived. The elections of these precarious emperors, their life and death, were equally destructive to their subjects and adherents. The price of their elevation was instantly paid to the troops by an immense donative drawn from the exhausted people. However virtuous their character, and however pure their intentions might be, they found themselves reduced to the necessity of supporting their usurpation by frequent acts of rapine and cruelty. When they fell, they involved armies and provinces in their fall, as appears from the letter of Gallienus already quoted. Whilst the forces of the state were dispersed in private quarrels, the defenceless provinces lay exposed to every invader. The bravest usurpers were compelled, by the perplexity of their situation, to conclude dishonourable treaties with the barbarians, and even to submit to shameful tributes, and introduce such numbers of barbarians into the Roman service as seemed sufficient at once to overthrow the empire.

416 Gallienus murdered and is succeeded by Claudius.

But when the empire seemed thus ready to sink at once, it suddenly revived on the death of Gallienus, who was murdered by Martian, one of his own generals, while he besieged Aureolus, one of the tyrants, in Milan. His death gave general satisfaction to all, except his soldiers, who hoped to reap the reward of their treachery by the plunder of Milan. But being frustrated in these expectations, and in some measure kept within bounds

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bounds by the largesses of Martian, Flavius Claudius was nominated to succeed, and joyfully accepted by all orders of the state, and his title confirmed by the senate and the people.

We are not sufficiently assured of this emperor's lineage and country. Some affirm that he was born in Dalmatia, and descended from an ancient family there; others assert that he was a Trojan; and others, that he was son to the emperor Gordian. But, whatever might have been his descent, his merits were by no means doubtful. He was a man of great valour and conduct, having performed the most eminent services against the Goths, who had long continued to make irruptions into the empire. He was now about 55 years old, equally remarkable for the strength of his body and the vigour of his mind; he was chaste and temperate, a rewarder of the good, and a severe punisher of such as transgressed the laws. Thus endowed, therefore, he in some measure put a stop to the precipitate decline of the empire, and once more seemed to restore the glory of Rome.

417 Who defeats the Goths, and retrieves the affairs of the empire.

His first success, upon being made emperor, was against Aureolus, whom he defeated near Milan. His next expedition was to oppose the Goths, against whom he led a very numerous army. These barbarians had made their principal and most successful irruptions into Thrace and Macedonia, swarmed over all Greece, and had pillaged the famous city of Athens, which had long been the school of all the polite arts to the Romans. The Goths, however, had no veneration for those embellishments that tend to soften and humanize the mind, but destroyed all monuments of taste and learning with the most savage alacrity. It was upon one of these occasions, that, having heaped together a large pile of books in order to burn them, one of the commanders dissuaded them from the design, alleging, that the time which the Grecians should waste on books would only render them more unqualified for war. But the empire seemed to tremble, not only on that side, but almost on every quarter. At the same time, above 300,000 of these barbarians (the Heruli, the Trutangi, the Virturgi, and many nameless and uncivilized nations) came down the river Danube, with 2000 ships, fraught with men and ammunition, spreading terror and devastation on every side.

In this state of universal dismay, Claudius alone seemed to continue unshaken. He marched his disproportioned army against the savage invaders; and though but ill prepared for such an engagement, as the forces of the empire were then employed in different parts of the world, he came off victorious, and made an incredible slaughter of the enemy. The whole of their great army was either cut to pieces or taken prisoners: houses were filled with their arms; and scarce a province of the empire, that was not furnished with slaves from those that survived the defeat. The successes were followed by many others in different parts of the empire; so that the Goths, for a considerable time after, made but a feeble opposition. He some time after, marched against the revolted Germans, and overthrew them with considerable slaughter. His last expedition was to oppose Tetricus and Zenobia, his two puissant rivals in the empire. But on his march, as he approached near Sirmium, in Pannonia, he was seized with a pestilential fever, of which he died in a few days, to the great regret of his subjects, and the irreparable loss of the Roman empire. His reign, which was not of quite two years continuance, was active and successful; and such is the character given of him by historians, that he is said to have united in himself the moderation of Augustus, the valour of Trajan, and the piety of Antoninus.

418 Claudius dies, and is succeeded by Aurelian.

Immediately after the death of Claudius, the army made unanimous choice of Aurelian, who was at that time master of the horse, and esteemed the most valiant commander of his time. However, his promotion was not without opposition on the part of the senate, as Quintillus, the brother of the deceased emperor, put in his claim, and was for a while acknowledged at Rome. But his authority was of very short duration: for finding himself abandoned by those who at first instigated him to declare for the throne, he chose to prevent the severity of his rival by a voluntary death, and causing his veins to be opened, expired, after having reigned but 17 days.

Aurelian being thus universally acknowledged by all the states of the empire assumed the command, with a greater show of power than his predecessors had enjoyed for some time before. This active monarch was born of mean and obscure parentage in Dacia, and was about 55 years old at the time of his coming to the throne. He had spent the early part of his life in the army, and had risen through all the gradations of military duty. He was of unshaken courage and amazing strength; he in one engagement killed 40 of the enemy with his own hand, and above 900 at several different times. In short, his valour and expedition were such, that he was compared to Julius Cæsar; and in fact, only wanted mildness and clemency to be every way his equal.

419 His great success against the barbarians.

The whole of this monarch's reign was spent in repressing the irruptions of the northern nations, in humbling every other pretender to the empire, and punishing the monstrous irregularities of his own subjects. He defeated the Marcomanni, who had invaded Italy, in three several engagements, and at length totally destroyed their army. He was not less successful against Zenobia, the queen of the East, a woman of the most heroic qualifications, who had long disclaimed the Roman power, and established an empire of her own, as is related under the article PALMYRA.

Aurelian having thus brought back peace to the empire, endeavoured, by the rigours of justice, to bring back virtue also. He was very strict in punishing the crimes of the soldiery: in his orders to his lieutenants, he insisted that the peasants should not be plundered upon any pretences; that not even a grape, a grain of salt, or a drop of oil, should be exacted unjustly. He caused a soldier, who had committed adultery with his hostess, to have his feet tied to the tops of two trees, forcibly bent at top to meet each other; which being let loose, and suddenly recoiling, tore the criminal in two. This was a severity that might take the name of cruelty; but the vices of the age, in some measure, required it. In these punishments inflicted on the guilty, the Christians, who had all along been growing more numerous, were sharers. Against these he drew up several letters and edicts, which showed that he intended a very severe persecution; but if we may believe the credulous historians of the times, he was diverted just as he

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he was going to sign them by a thunderbolt, which fell so near his person, that all the people judged him to be destroyed.

But, however Heaven might have interposed on this occasion, it is certain that his severities at last were the cause of his destruction. Menesthus, his principal secretary, having been threatened by him for some fault which he had committed, began to consider how he might prevent the meditated blow. For this purpose, he forged a roll of the names of several persons, whom he pretended the emperor had marked out for death, adding his own to strengthen him in the confidence of the party. The scroll thus contrived was shown with an air of the utmost secrecy to some of the persons concerned; and they, to procure their safety, immediately agreed with him to destroy the emperor. This resolution was soon put in execution; for, as the emperor passed with a small guard from Uraclea, in Thrace, towards Byzantium, the conspirators set upon him at once, and slew him with very small resistance. He was slain in the 60th, or, as some say, in the 63d year of his age, after a very active reign of almost five years.

420 He is murdered.

The number of pretenders to the throne, which had formerly infested the empire, were, by the last monarch's activity, so entirely removed, that there now seemed to be none that would venture to declare himself a candidate. The army referred the choice to the senate; and, on the other side, the senate declined it; so that a space of near eight months elapsed in these negociations. At length, however, the senate made choice of Tacitus, a man of great merit, and noway ambitious of the honours that were offered him. Upon being solicited to accept the empire, he at first refused, and retired to his country house in Campania, to avoid their importunities; but being at length prevailed upon, he accepted the reins of government, being at that time 75 years old.

421 Tacitus chosen emperor.

One of the first acts of his government was the punishment of those who had conspired against the late emperor. Menesthus was impaled alive, his body being thrown to be devoured by wild beasts: his estate also was confiscated to the exchequer; and his ready money, which was very considerable, applied towards paying the army. During this short reign, the senate seemed to have a large share of authority, and the historians of the times are liberal of their praises to such emperors as were thus willing to divide their power.—Upon endeavouring to obtain the consulship for his brother Probus, he was refused it by the senate: at which he seemed no way moved, but calmly remarked that the senate best knew whom to choose. This moderation prevailed in all the rest of his conduct: he was extremely temperate; his table was plain, and furnished with nothing expensive: he even prohibited his empress from wearing jewels, and forbade the use of gold and embroidery. He was fond of learning, and the memory of such men as had deserved well of their country. He particularly esteemed the works of his namesake Tacitus the historian; commanding that they should be placed in every public library throughout the empire, and that many copies of them should be transcribed at the public charge. A reign begun with such moderation and justice, only wanted continuance to have made the empire happy; but after enjoying the empire about six months, he died of a fever in his march to oppose the Persians and Scythians, who had invaded the eastern parts of the empire.

422 His death.

Upon the death of Tacitus the army seemed divided in the choice of an emperor; one part of it chose Florianus, brother to the deceased; but the majority were for some time undetermined. They alleged amongst each other the necessity of choosing one eminent for valour, honour, piety, clemency, and probity; but the last virtue being that chiefly insisted upon, the whole army, as if by common consent, cried out that Probus should be emperor. He was accordingly confirmed in this dignity with the usual solemnities: and Florianus finding himself deserted, even by those legions who had promised to stand up in his support, opened his arteries and bled himself to death.

423 Probus raised to the empire.

Probus was 44 years old, when he ascended the throne, being born of noble parentage at Sirmium in Pannonia, and bred up a soldier from his youth. He began early to distinguish himself for his discipline and valour; being frequently the first man who in besieging towns scaled the walls, or that burst into the enemy's camp. He was no less remarkable for single combats, and saving the lives of many eminent citizens. Nor was his activity and courage, when elected to the empire, less apparent, than in his private station. He first repressed the Germans in Gaul, of whom he slew 400,000. He then marched into Dalmatia, to oppose and subdue the Sarmatians. From thence he led his forces into Thrace, and forced the Goths to sue for peace. He after that turned his arms towards Asia; subdued the province of Isauria; and marching onward, conquered a people called the *Blemyes*; who, leaving their native forests of Ethiopia, had possessed themselves of Arabia and Judea, and had continued in a state of rebellion since the reign of Gallienus. Narses also, the king of Persia, submitted at his approach: and upon his return into Europe, he divided the depopulated parts of Thrace among its barbarous invaders: a circumstance that afterwards produced great calamities to the empire.

424 His conquests.

His diligence was not less conspicuous in suppressing intestine commotions. Saturninus, being compelled by the Egyptians to declare himself emperor, was defeated and slain. Proculus also (a person remarkable only for his great attachment to women, and who boasted in a letter, that having taken 100 Sarmatian virgins prisoners, he deprived ten of that name in one night, and all the rest within a fortnight) set up against the emperor; but was compelled to fly, and at length delivered up by the Germans. At the same time Bonosus (who was a remarkable votary to Bacchus, being able to drink as much wine as ten could do, without being disordered) rebelled, and being overcome hanged himself in despair. Probus, when he saw him immediately after his death, could not avoid pointing to him, and saying, "There hangs not a man but a cask." Still, however, notwithstanding every effort to give quiet to the empire, the barbarians who surrounded it kept it in continual alarms. They were frequently repulsed into their native wilds, but they as certainly returned with fresh rage and increased ferocity. The Goths and Vandals, finding the emperor engaged in quelling domestic disputes, renewed their accustomed inroads, and once more felt the punishment of their presumptions. They were conquered in several engagements, and Probus returned in triumph to Rome. His active temper, however, would

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not suffer him to continue at rest whilst a single enemy was left to conquer. In his last expedition he led his soldiers against the Persians; and going through Sirmium, the place of his nativity, he there employed several thousands of his soldiers in draining a fen that was incommodious to the inhabitants. The fatigues of this undertaking, and the great restraint that was laid upon the soldiers licentious manners, produced a conspiracy, which ended in his ruin: for taking the opportunity as he was marching into Greece, they set upon and slew him after he had reigned six years and four months with general approbation.

425 Is murdered.

426 Reigns of Carus, Carinus and Numerianus.

Carus, who was prætorian prefect to the deceased emperor, was chosen by the army to succeed him; and he, to strengthen his authority, named his two sons Carinus and Numerianus with him in command; the former of whom was as much sullied by his vices, as the youngest was virtuous, modest, and courageous. The new emperor had scarce time to punish the murderers of the late monarch, when he was alarmed by a fresh irruption of the Sarmatians; over whom he gained a signal victory. The Persian monarch also made some attempts upon the empire; but Carus assured his ambassadors, that if their master persisted in his obstinacy, all his fields should shortly be as bare as his own bald head, which he showed them. In consequence of this threat, he marched to the very walls of Ctesiphon, and a dreadful battle ensuing, he once more gained a complete victory. What the result of this success might have been, is not known; for he was shortly after struck by lightning in his tent, with many others that were round him. Numerianus, the youngest son, who accompanied his father in this expedition, was inconsolable for his death; and brought such a disorder upon his eyes with weeping, that he was obliged to be carried along with the army, shut up in a close litter. The peculiarity of his situation, after some time, excited the ambition of Aper, his father-in-law, who supposed that he could now, without any great danger, aim at the empire himself. He therefore hired a mercenary villain to murder the emperor in his litter; and the better to conceal the fact, gave out that he was still alive, but unable to endure the light. In this manner was the dead body carried about for some days, Aper continuing to attend it with the utmost appearance of respect, and to take orders as usual. The offensiveness, however, of its smell at length discovered the treachery, and excited an universal uproar throughout the army. In the midst of this tumult, Dioclesian, one of the most noted commanders of his time, was chosen emperor, and with his own hand slew Aper; having thus, as it is said, fulfilled a prophecy, which had said, that Dioclesian should be emperor after he had slain a boar; alluding to the name of his rival, which signifies a boar. Carinus, the remaining son, did not long survive his father and brother; for giving himself up to his vices, and yet at the same time opposing the new-made emperor, the competitors led their forces into Mœsia; where Dioclesian being victorious, Carinus was slain by a tribune of his own army, whose wife he had formerly abused.

427 Dioclesian raised to the empire.

Dioclesian was a person of mean birth; being accounted, according to some, the son of a scrivener; and of a slave, according to others. He received his name from Dioclea, the town in which he was born; and was about 40 years old when he was elected to the empire. He pardoned all who had joined Carinus, without injuring either their fortunes or honours. Conscious also that the weight of empire was too heavy for one alone to sustain, he took in Maximian, his general, as a partner in the fatigues of duty, making him his equal and companion on the throne. Thus mutually assisting each other, these two continued to live in strict friendship; and though somewhat differing in temper (as Maximian was rather a man of vicious inclinations), yet they concurred in promoting the general good, and humbling their enemies. And it must be observed, that there never was a period in which there were more numerous or formidable enemies to oppose.

428 Takes Maximian for his partner.

429 Insurrections, and other calamities.

The peasants and labourers in Gaul made a dangerous insurrection, under the conduct of Amandus and Helianus, but were subdued by Maximian. Achilleus, who commanded in Egypt, proclaimed himself emperor; and it was not without many bloody engagements that he was overcome, and condemned by Dioclesian to be devoured by lions. In Africa, the Roman legions, in like manner, joined with many of the natives, seized upon the public revenues, and plundered those who continued in their duty. These were also subdued by Maximian; and, after a long dubious war, constrained to sue for peace. About the same time, a principal commander in Britain named *Carausius*, proclaimed himself emperor, and possessed himself of the island. To oppose this general's claims, Maximian made choice of Constantius Chlorus, whom he created Cæsar, and married to Theodora, his daughter-in-law. He, upon his arrival in Britain, finding Carausius very strong, and continually reinforced from Germany, thought proper to come to an accommodation; so that this usurper continued for seven years in quiet possession of the whole island, till he was slain by Alectus, his friend and intimate. About this time also, Narses, king of Persia, began a dangerous war upon the empire, and invaded Mesopotamia. To stop the progress of the enemy upon this quarter, Dioclesian made choice of Galerius (surnamed *Armentarius*, from the report of his being born of a cow-herd in Dacia); and he likewise was created Cæsar. His success also, though very doubtful in the beginning, was in the end terminated according to his wishes. The Persians were overcome in a decisive engagement, their camp plundered and taken, and their king's wives and children made prisoners of war. There only remained, of all the enemies of the Roman empire, those who lay to the northward unsubdued. These were utterly unconquerable, as well upon account of their savage fierceness, as the inhospitable severity of the climate and soil from whence they issued. Ever at war with the Romans, they issued forth, when the armies that were to repress their invasions were called away; and upon their return, they as suddenly withdrew into cold, barren, and inaccessible places, which only themselves could endure. In this manner the Goths, Sarmatians, Alani, Quadi &c. poured down in incredible numbers; while every defeat seemed but to increase their strength and perseverance. Of these, multitudes were taken prisoners, and sent to people the more southern parts of the empire; still greater numbers were destroyed; and though the rest were driven back to their native forests, yet they continued ever mindful of their inveterate

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inveterate enmity, and, like a savage beast, only continued inactive, till they had licked their wounds for a new encounter.

430 The Christians cruelly persecuted.

During this interval, as if the external miseries of the empire were not sufficient, the tenth and last great persecution was renewed against the Christians. This is said to have exceeded all the former in severity: and such was the zeal with which it was pursued, that, in an ancient inscription, we are informed that they had effaced the name and superstition of the Christians, and had restored and propagated the worship of the gods. Their attempts, however, were but the malicious efforts of an expiring party; for Christianity shortly after was established by law, and triumphed over the malice of all its enemies.

431 Dioclesian and Maximian resign.

In the midst of the troubles raised by this persecution, and of the contests that struck at the internal parts of the state, Dioclesian and Maximian surprised the world by resigning their dignities on the same day, and both retiring into private stations. Historians are much divided concerning the motives that thus induced them to give up those honours which they had purchased with so much danger. Some ascribe it to the philosophical turn of Dioclesian; and others, to his being disgusted with the obstinacy of his Christian subjects: but Lactantius asserts, that he was compelled to it, together with his partner, by Galerius, who coming to Nicomedia, upon the emperor's recovery from a great sickness, threatened him with a civil war in case he refused to resign. However, of this we are well assured, that he still preserved a dignity of sentiment in his retirement, that might induce us to believe he had no other motive for resignation than the love of quiet, and the consciousness of his inability to discharge on a sick-bed the duties of a sovereign. Having retired to his birth-place, he spent his time in cultivating his garden, assuring his visitors that then only he began to enjoy the world, when he was thought by the rest of mankind to forsake it. When also some attempted to persuade him to resume the empire, he replied. That if they knew his present happiness, they would rather endeavour to imitate than disturb it. In this contented manner he lived some time, and at last died either by poison or madness, it is uncertain which. His reign, which continued 20 years, was active and useful; and his authority, tinctured with severity, was well adapted to the depraved state of morals at that time.

Maximian, his partner in the empire and in resignation, was by no means so contented with his situation. He longed once more for power, and disturbed the two succeeding reigns with various efforts to resume it; attempting to engage Dioclesian in the same design. Being obliged to leave Rome, where he had bred great confusion, he went over into Gaul, where he was kindly received by Constantine, the then acknowledged emperor of the west. But here also continuing his intrigues, and endeavouring to force his own daughter and destroy her husband, he was detected, and condemned to die by whatever death he should think proper; and Lactantius tells us that he chose hanging.

432 Constantius Chlorus, and Galerius.

Upon the resignation of the two emperors, the two Cæsars whom they had formerly chosen were universally acknowledged as their successors. Constantius Chlorus, who was so called from the plainness of his complexion, was virtuous, valiant, and merciful. Galerius, on the other hand, was brave, but brutal, incontinent, and cruel. As there was such a disparity in their tempers, they readily agreed, upon coming into full power, to divide the empire; Constantius being appointed to govern the western parts; namely, Italy, Sicily, the greatest part of Africa, together with Spain, Gaul, Britain, and Germany; Galerius had the eastern parts allotted to his share; to wit, Illyricum, Pannonia, Thrace, Macedon, all the provinces of Greece, and the Lesser Asia, together with Egypt, Syria, Judea, and all the countries eastward. The greatness of the division, however, soon induced the emperors to take in two partners more, Severus and Maximin, who were made Cæsars, and assisted in the conducting of affairs; so that the empire now was under the guidance of four persons, all invested with supreme authority.

We are informed but of few particulars of the reign of Constantius, except a detail of his character, which appears in every light most amiable. He was frugal, chaste, and temperate. His mercy and justice were equally conspicuous in his treatment of the Christians, whom he would not suffer to be injured; and when at length persuaded to displace all the Christian officers of his household that would not change their religion, when some of them complied, he sent them away in disgrace; alleging, that those who were not true to their God, would never be faithful to their prince.

In the second year of his reign he went over into Britain; and leaving his son Constantine as a kind of hostage in the court of his partner in the empire, took up his residence at York. He there continued in the practice of his usual virtues; till falling sick, he began to think of appointing his son for his successor. He accordingly sent for him with all speed; but he was past recovery before his arrival: notwithstanding he received him with marks of the utmost affection, and raising himself in his bed, gave him several useful instructions, particularly recommending the Christians to his protection. He then bequeathed the empire to his care; and crying out, that none but the pious Constantine should succeed him, he expired in his arms.

In the mean time, Galerius, his partner in the empire, being informed of Constantine's advancement, testified the most ungovernable rage, and was even going to condemn the messenger who brought him the account: but being dissuaded, he seemed to acquiesce in what he could not prevent, and sent him the marks of royalty; but at the same time declared Severus emperor, in opposition to his interests. Just about this time also, another pretender to the empire started up. This was Maxentius, a person of mean extraction; but very much favoured by the soldiers, whom he permitted to pillage at discretion. In order to oppose Maxentius, Severus led a numerous army towards the gates of Rome; but his soldiers considering against whom they were to fight, immediately abandoned him; and shortly after he put an end to his own life, by opening his veins. To revenge his death, Galerius marched into Italy, resolving to ruin the inhabitants, and to destroy the whole senate. His soldiers, however, upon approaching the capital, began to waver in their resolutions: wherefore he was obliged to have recourse to intreaties, imploring them not to abandon him; and, retiring by the same route by which he had advanced, made Licinius, who was originally the son of a poor labourer in Dacia, Cæsar, in the room of Severus who was slain. This seemed

433 Maxentius usurps the throne.

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434 Dreadful death of Galerius.

ed to be the last act of his power; for shortly after he was seized with a very extraordinary disorder in his privities, which baffled all the skill of his physicians, and carried him off, after he had languished in torments for near the space of a year. His cruelty to the Christians was one of the many crimes alleged against him; and their historians have not failed to aggravate the circumstances of his death as a judgment from Heaven for his former impiety. However this be, he abated much of his severities against them on his deathbed; and revoked those edicts which he had formerly published, tending to their persecution, a little before his death.

Constantine being thus delivered from his greatest opponent, might now be considered as possessing more power than any of his rivals who were yet remaining. The empire was at that time divided between him and three others: Maxentius, who governed in Rome, a person of a cruel disposition, and a stedfast supporter of paganism; Licinius, who was adopted by Galerius, and commanded in the east; and likewise Maximin, who had formerly been declared Cæsar with Severus, and who also governed some of the eastern provinces.

For some time all things seemed to wear a peaceful appearance; till at length, either ambition, or the tyrannical conduct of Maxentius, induced Constantine to engage in an expedition to expel that commander from Rome, and to make the proper preparations for marching into Italy. It was upon this occasion that he formed a resolution which produced a mighty change in the politics as well as the morals of mankind, and gave a new turn to the counsels of the wise, and the pursuits of ambition. One evening, as we are told by Eusebius, the army being upon its march toward Rome, Constantine was taken up with various considerations upon the fate of sublunary things, and the dangers of his approaching expedition: sensible of his own incapacity to succeed without divine assistance, he employed his meditations upon the opinions that then were chiefly agitated among mankind, and sent up his ejaculations to Heaven to inspire him with wisdom to choose the path he ought to pursue. It was then, as the sun was declining, that there suddenly appeared a pillar of light in the heavens, in the form of a cross, with this inscription, ΤΟΥΤΩ ΝΙΚΙΙ, "In this overcome." So extraordinary an appearance did not fail to create astonishment both in the emperor and his whole army, who considered it as their dispositions led them to believe. Those who were attached to paganism, prompted by their auspices, pronounced it a most inauspicious omen, portending the most unfortunate events. But it made a different impression on the emperor's mind; who, as the account goes, was farther encouraged by visions the same night. He therefore, the day following, caused a royal standard to be made, like that which he had seen in the heavens; and commanded it to be carried before him in his wars, as an ensign of victory and celestial protection. After this, he consulted with several of the principal teachers of Christianity, and made a public avowal of that sacred persuasion.

435 Constantine's vision and conversion to Christianity.

Constantine having thus attached to his interest his soldiers, who were mostly of the Christian persuasion, lost no time in entering Italy with 90,000 foot and 8000 horse; and soon advanced to the very gates of Rome. The unfortunate Maxentius, who had long given himself up to ease and debauchery, now began to make preparations when it was too late. He first put in practice all the superstitious rites which paganism taught to be necessary; and then consulted the Sibylline books; from whence he was informed, that on that great day the enemy of Rome should perish. This prediction, which was equivocal, he applied to Constantine; so that, leaving all things in the best posture, he advanced from the city with an army of 100,000 foot and 18,000 horse. The engagement was for some time fierce and bloody, till his cavalry being routed, victory declared upon the side of his opponent, and he himself was drowned in his flight by the breaking down of a bridge as he attempted to cross the river Tiber.

436 Maxentius defeated and killed.

Constantine, in consequence of this victory, entering the city, disclaimed all praises which the senate and people were ready to offer; ascribing his success to a superior power. He even caused the cross, which it is said he saw in the heavens, to be placed at the right of all his statues, with this inscription: "That under the influence of that victorious cross, Constantine had delivered the city from the yoke of tyrannical power, and had restored the senate and people of Rome to their ancient authority." He afterwards ordained, that no criminal should for the future suffer death by the cross; which had formerly been the most usual way of punishing slaves convicted of capital offences. Edicts were soon after issued, declaring that the Christians should be eased from all their grievances, and received into places of trust and authority. Thus the new religion was seen at once to prevail over the whole Roman empire; and as that enormous fabric had been built and guided upon pagan principles, it lost a great deal of its strength and coherence when those principles were thus at once subverted.

Things continued in this state for some time, Constantine all the while contributing what was in his power to the interest of religion, and the revival of learning, which had long been upon the decline, and was almost wholly extinct in the empire. But in the midst of these assiduities, the peace of the empire was again disturbed by the preparations of Maximin, who governed in the east, and who, desirous of a full participation of power, marched against Licinius with a very numerous army. In consequence of this step, after many conflicts, a general engagement ensued, in which Maximin suffered a total defeat; many of his troops were cut in pieces, and those that survived submitted to the conqueror. Maximin, however, having escaped the general carnage, once more put himself at the head of another army, resolving to try the fortune of the field; but death prevented his design. As he died by a very extraordinary kind of madness, the Christians, of whom he was the declared enemy, did not fail to ascribe his end to a judgment from heaven; but this was the age in which false judgements and false miracles made up the bulk of their uninstructive history.

437 Maximin's defeat and death.

Constantine and Licinius thus remaining undisputed possessors and partners in the empire, all things promised a peaceable continuance of friendship and power. However, it was soon found, that the same ambition that aimed after a part, would be content with nothing less than the whole. Pagan writers ascribe the rupture between these two potentates to Constantine; while the Christians, on the other hand, impute it wholly to

438 War between Constantine and Licinius.

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Licinius. Both, perhaps, might have concurred: for Licinius is convicted of having persecuted Christianity, which was so highly favoured by his rival; and Constantine is known to have been the first to begin the preparations for an open rupture. Both sides exerted all their power to make opposition; and at the head of very formidable armies, came to an engagement near Cybalis, in Pannonia. Constantine, previous to the battle, in the midst of his Christian bishops, begged the assistance of heaven; while Licinius, with equal zeal, called upon the pagan priests to intercede with the gods in his favour. Constantine, after an obstinate resistance from the enemy, became victorious; took their camp; and after some time, compelled Licinius to sue for a truce, which was agreed upon. But this was of no long continuance; for soon after, the war breaking out afresh, and the rivals coming once more to a general engagement, it proved decisive. Licinius was entirely defeated and pursued by Constantine into Nicomedia, where he surrendered himself up to the victor: having first obtained an oath that his life should be spared, and that he should be permitted to pass the remainder of his days in retirement. This, however, Constantine shortly after broke; for either fearing his designs, or finding him actually engaged in fresh conspiracies, he commanded him to be put to death, together with Martian his general, who some time before had been created Cæsar.

439 Licinius overcome and put to death.

Constantine being now sole monarch of the empire, without a rival to divide his power, or any person from whose claims he could have the least apprehensions, resolved to establish Christianity on so sure a basis, that no new regulations should shake it. He commanded that in all the provinces of the empire the orders of the bishops should be exactly obeyed; a privilege of which, in succeeding times, these fathers made but a very indifferent use. He called also a general council of these, to meet at Nicea, in order to repress the heresies that had already crept into the church, particularly that of Arius. To this place repaired about 318 bishops, besides a multitude of presbyters and deacons, together with the emperor himself; who all, to about 17, concurred in condemning the tenets of Arius; who, with his associates, was banished into a remote part of the empire.

Having thus restored universal tranquillity to the empire, he was not able to ward off calamities of a more domestic nature. As the histories of that period are entirely at variance with each other, it is not easy to discover the motives which induced him to put his wife Fausta and his son Crispus to death. The most plausible account is this: Fausta the empress, who was a woman of great beauty, but of extravagant desires, had long, though secretly, loved Crispus, Constantine's son by a former wife. She had tried every art to inspire this youth with a mutual passion; but, finding her more distant efforts ineffectual, had even the confidence to make him an open confession of her desires. This produced an explanation, which was fatal to both. Crispus received her addresses with detestation; and she to be revenged, accused him to the emperor. Constantine, fired at once with jealousy and rage, ordered him to die without a hearing; nor did his innocence appear till it was too late for redress. The only reparation, therefore, that remained, was the putting Fausta, the wicked instrument of his former cruelty, to death; which was accordingly executed upon her, together with some others who had been accomplices in her falsehood and treachery.

404 Constantine puts his wife and son to death.

But the private misfortunes of a few were not to be weighed against evils of a more general nature, which the Roman empire shortly after experienced. These arose from a measure which this emperor conceived and executed, of transferring the seat of the empire from Rome to Byzantium, or *Constantinople*, as it was afterwards called. Whatever might have been the reasons which induced him to this undertaking; whether it was because he was offended at some affronts he received at Rome, or that he supposed Constantinople more in the centre of the empire, or that he thought the eastern parts more required his presence. experience has shown that they were weak and groundless. The empire had long before been in the most declining state; but this in a great measure gave precipitation to its downfall. After this it never resumed its former splendour, but languished.

441 Transfers the seat of empire to Constantinople.

His first design was to build a city which he might make the capital of the world; and for this purpose, he made choice of a situation at Chalcedon in Asia Minor; but we are told, that in laying out the ground-plan, an eagle caught up the line and flew with it over to Byzantium, a city which lay upon the opposite side of the Bosphorus. Here, therefore, it was thought expedient to fix the seat of the empire; and indeed nature seems to have formed it with all the conveniences and all the beauties which might induce power to make it the seat of residence. It was situated on a plain that rose gently from the water; it commanded that strait which unites the Mediterranean with the Euxine sea, and was furnished with all the advantages which the most indulgent climate could bestow. This city, therefore, he beautified with the most magnificent edifices; he divided it into 14 regions; built a capitol, an amphitheatre, many churches, and other public works; and having thus rendered it equal to the magnificence of his idea, he dedicated it in a very solemn manner to the God of martyrs; in about two years after, repairing thither with his whole court.

The removal produced no immediate alteration in the government of the empire; the inhabitants of Rome, though with reluctance, submitted to the change; nor was there for two or three years any disturbance in the state, until at length the Goths, finding that the Romans had withdrawn all their garrisons along the Danube, renewed their inroads, and ravaged the country with unheard of cruelty. Constantine, however, soon repressed their incursions, and so straitened them, that near 100,000 of their number perished by cold and hunger. These and some other insurrections being happily suppressed, the government of the empire was divided as follows. Constantine, the emperor's eldest son, commanded in Gaul and the western provinces; Constantius governed Africa and Illyricum; and Constans ruled in Italy. Dalmatius, the emperor's brother, was sent to defend those parts that bordered upon the Goths; and Annibalianus, his nephew, had the charge of Cappadocia and Armenia Minor. This division of the empire still farther contributed to its downfall: for the united strength of the state being no longer brought to repress invasions, the barbarians fought with superior numbers; and conquered at last, though often defeated.

Constantine,

Rome.

Constantine, however, did not live to feel these calamities. The latter part of his reign was peaceful and splendid; ambassadors from the remotest Indies came to acknowledge his authority; the Persians, who were ready for fresh inroads, upon finding him prepared to oppose, sent humbly to desire his friendship and forgiveness. He was above 60 years old, and had reigned above 30 years, when he found his health began to decline. To obviate the effects of his disorder, which was an intermitting fever, he made use of the warm baths of the city; but receiving no benefit from thence, he removed for change of air to Helenopolis, a city which he had built to the memory of his mother. His disorder increasing, he changed again to Nicomedia; where finding himself without hopes of recovery, he caused himself to be baptized; and having soon after received the sacrament, he expired, after a memorable and active reign of 32 years. This monarch's character is represented to us in very different lights: the Christian writers of that time adorning it with every strain of panegyric; the heathens, on the contrary, loading it with all the virulence of invective. He established a religion that continues the blessing of mankind; but pursued a scheme of politics that destroyed the empire.

442 Death of Constantine.

From the time of Constantine to the division of the empire between Valentinian and his brother Valens, the history of Rome is related under the article CONSTANTINOPLE, where also that of the eastern part is carried down to the final destruction of that city by the Turks. In the beginning of the reign of Valentinian, the province of Libya Tripolitana was grievously oppressed by the barbarians of the desert, and almost equally so by Romanus its own governor. His conduct was so exceedingly oppressive, that the inhabitants sent a deputation to Valentinian, complaining of their unhappy situation, and desiring redress. Palladius was accordingly sent to inquire into the state of the province; but being gained over by Romanus, he made a false report to the emperor; and thus the unhappy province was left a prey to the merciless invaders and rapacious governor. During the rest of this reign the barbarians continued their inroads into the empire; and among others, we find the Saxons now putting in for a share of the spoils of the ruined empire: however, their army was at this time entirely cut off. At last Valentinian himself took the field against these northern barbarians; and entering the country of the Quadi, destroyed all with fire and sword. The barbarians on this were fain to sue for peace in a very humble manner; but Valentinian, falling into a great passion while speaking to them, threatened to extirpate the whole nation at once. His fury on this occasion produced an apoplexy, or some other mortal disorder; for he suddenly fell down, and being conveyed by his attendants into his chamber, he was seized with violent convulsive fits and contortions of all his limbs, in the agonies of which he expired, in the year 375, the 55th of his age, and 12th of his reign.

443 Reign of Valentinian.

After the death of Valentinian, his son Gratian took upon him the imperial dignity: soon after becoming master of the whole empire by the death of Valens. The transactions of his reign, and those of his partner Theodosius, are related under the article CONSTANTINOPLE, N° 77 - 89. The death of Theodosius gave the finishing stroke to the Roman affairs; his son Honorius, to whom he left the western empire, being possessed of no abilities whatever, and indeed seeming to have been but very little removed from an idiot. The barbarians appear to have been abundantly sensible of the advantages offered them by the death of Theodosius. He expired in the month of January; and before the accession of spring, the Goths were in arms. The barbarian auxiliaries also now declared their independency; and along with their countrymen, furiously assailed the declining empire. The Goths were now headed by an experienced commander, their celebrated king Alaric, who would have proved formidable even in better times of the empire. He first overran Greece, which he accomplished without opposition, through the treachery of the governor, who commanded the troops that defended the pass at Thermopylæ to retire at the approach of the enemy. Athens, Corinth, Argos, Sparta, yielded without resistance; and the whole country was ravaged and destroyed by the blood-thirsty barbarians. At last, in the year 397, he was opposed by Stilicho, the general of Honorius, a man of great valour and experience in war. The Goths were defeated with great loss, and afterwards besieged in their camp; but through mistake or negligence in the Roman commander, they were suffered to escape, and make themselves masters of the province of Epirus. Alaric then, having found means to conclude a treaty with the ministers of Constantinople, Stilicho was obliged to retire.

444 Invasion of the Goths under Alaric.

Not long after this, Alaric invaded Italy itself. The emperor, struck with terror, would have abandoned the country and fled into Gaul: but this disgraceful and pernicious measure was opposed by Stilicho; who proposed to the court of Honorius, at that time at Milan, that if they would maintain their ground during his absence he would soon return with an army capable of opposing the barbarians. This being agreed to, Stilicho immediately set out for Rhætia, where the most considerable body of the Roman forces at that time was, and collected his troops with the utmost diligence. But in the mean time Honorius was in the greatest danger; having been obliged to take refuge in the town of Asta in Piedmont. To this place the Goths instantly laid siege, and a capitulation had been proposed, when the drooping spirits of Honorius were at once revived by the arrival of Stilicho, whom he had so long expected. The Goths were now besieged in their turn, and obliged to come to a decisive battle at Pollentia. The engagement lasted the whole day; but at last the Goths were compelled to retreat. Their camp was instantly invested; their entrenchments forced with great slaughter; the wife of Alaric was taken, with all the wealth which had been amassed in plundering Greece; while many thousands of Roman prisoners were released from the most deplorable slavery. The victory, however, was not so decisive but that Alaric continued still extremely formidable; and Stilicho chose rather to conclude a treaty with him, and allow him an annual pension, than to continue the war with vigour. Alaric, who was not very scrupulous in his observance of this treaty, in his retreat attempted to make himself master of the city of Verona: but Stilicho coming up with him near that place, gave him a terrible defeat, in which the loss was little less than it had been at Pollentia; after which he effected a retreat out of Italy, but not without the greatest difficulty and danger.

445 Goths defeated at Pollentia.

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Italy being thus happily delivered, Honorius entered Rome in triumph, having Stilicho along with him in the triumphal chariot. On his entry into the city, he abolished the shows of gladiators; which, though forbidden by Constantine, had been tolerated by his successors and even by Theodosius himself, out of complaisance to the people, who were beyond measure fond of that inhuman diversion. However, soon after, the emperor was obliged to leave the metropolis and retire to Ravenna, in order to secure himself from the barbarians, who now broke in upon the empire on all sides. Such multitudes now made their appearance, that it is not a little difficult to account for their sudden emigration. Mr Gibbon accounts for it from a supposed revolution in the north-eastern parts of China. "The Chinese annals (says he), as they have been interpreted by the learned industry of the present age, may be usefully applied to reveal the secret and remote causes of the fall of the Roman empire. The extensive territory to the north of the great wall was possessed after the flight of the Huns, by the victorious Sienpi; who were sometimes broken into independent tribes, and sometimes re-united under a supreme chief; till at length styling themselves *Topa*, or "masters of the earth," they acquired a more solid consistence, and a more formidable power. The Topa soon compelled the pastoral nations of the eastern desert to acknowledge the superiority of their arms; they invaded China in a period of weakness and intestine discord; and these fortunate Tartars, adopting the laws and manners of the vanquished people, founded an imperial dynasty, which reigned near 160 years over the northern provinces of the monarchy. Some generations before they ascended the throne of China, one of the Topa princes had inlisted in his cavalry a slave of the name of *Moko*, renowned for his valour; but who was tempted, by the fear of punishment, to desert his standard, and to range the desert at the head of 100 followers. This gang of robbers and outlaws swelled into a camp, a tribe, a numerous people, distinguished by the appellation of *Geougen*; and their hereditary chieftains, the posterity of Moko the slave, assumed their rank among the Scythian monarchs. The youth Toulun, the greatest of his descendants, was exercised by those misfortunes which are the school of heroes. He bravely struggled with adversity, broke the imperious yoke of the Topa, and became the legislator of his nation, and the conqueror of Tartary. His troops were distributed into regular bands of 100 and of 1000 men; cowards were stoned to death; the most splendid honours were proposed as the reward of valour; and Toulun, who had knowledge enough to despise the learning of China, adopted only such arts and institutions as were favourable to the military spirit of his government. His tents, which he removed in the winter season to a more southern latitude, were pitched during the summer on the fruitful banks of the Selinga. His conquests stretched from the Corea far beyond the river Irtish. He vanquished, in the country to the north of the Caspian sea, the nation of the Huns; and the new title of *Khan*, or *Cagan*, expressed the fame and power which he derived from this memorable victory.

446 Honorius retires to Ravenna.

447 Mr Gibbon's account of the revolutions in China.

"The chain of events is interrupted, or rather is concealed, as it passes from the Volga to the Vistula, through the dark interval which separates the extreme limits of the Chinese and of the Roman geography. Yet the temper of the barbarians, and the experience of successive emigrations, sufficiently declare, that the Huns, who were oppressed by the arms of the Geougen, soon withdrew from the presence of an insulting victor. The countries towards the Euxine were already occupied by their kindred tribes; and their hasty flight, which they soon converted into a bold attack, would more naturally be directed towards the rich and level plains through which the Vistula gently flows into the Baltic sea. The north must again have been alarmed and agitated by the invasion of the Huns; and the nations who retreated before them must have pressed with incumbent weight on the confines of Germany. The inhabitants of those regions which the ancients have assigned to the Suevi, the Vandals, and the Burgundians, might embrace the resolution of abandoning to the fugitives of Sarmatia their woods and morasses; or at least of discharging their superfluous numbers on the provinces of the Roman empire. About four years after the victorious Toulun had assumed the title of *khan of the Geougen*, another barbarian, the haughty Rhodogast, or Radagaisus, marched from the northern extremities of Germany almost to the gates of Rome, and left the remains of his army to achieve the destruction of the west. The Vandals, the Suevi, and the Burgundians, formed the strength of this mighty host; but the Alani, who had found an hospitable reception in their new seats, added their active cavalry to the heavy infantry of the Germans; and the Gothic adventurers crowded so eagerly to the standard of Radagaisus, that by some historians he has been styled the *king of the Goths*. Twelve thousand warriors, distinguished above the vulgar by their noble birth or their valiant deeds, glittered in the van; and the whole multitude, which was not less than 200,000 fighting men, might be increased by the accession of women, of children, and of slaves, to the amount of 400,000 persons. This formidable emigration issued from the same coast of the Baltic which had poured forth the myriads of the Cimbri and Teutones to assault Rome and Italy in the vigour of the republic. After the departure of those barbarians, their native country, which was marked by the vestiges of their greatness, long ramparts and gigantic moles, remained during some ages a vast and dreary solitude; till the human species was renewed by the powers of generation, and the vacancy was filled up by the influx of new inhabitants. The nations who now usurp an extent of land which they are unable to cultivate, would soon be assisted by the industrious poverty of their neighbours, if the government of Europe did not protect the claims of dominion and property.

448 Radagaisus invades Italy with a prodigious army.

"The correspondence of nations was in that age so imperfect and precarious, that the revolutions of the north might escape the knowledge of the court of Ravenna; till the dark cloud which was collected along the coast of the Baltic burst in thunder upon the banks of the Upper Danube. The emperor of the west, if his ministers disturbed his amusements by the news of the impending danger, was satisfied with being the occasion and the spectator of the war. The safety of Rome was intrusted to the counsels and the sword of Stilicho; but such was the feeble and exhausted state of the empire, that it was impossible to restore the fortifications

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tifications of the Danube, or to prevent by a vigorous effort, the invasion of the Germans. The hopes of the vigilant minister of Honorius were confined to the defence of Italy. He once more abandoned the provinces; recalled the troops; pressed the new levies, which were rigorously enacted, and pusillanimously eluded; employed the most efficacious means to arrest or allure the deserters; and offered the gift of freedom, and of two pieces of gold, to all the slaves who would enlist. By these efforts he painfully collected from the subjects of a great empire an army of 30,000 or 40,000 men; which, in the days of Scipio or Camillus, would have been instantly furnished by the free citizens of the territory of Rome. The 30 legions of Stilicho were reinforced by a large body of barbarian auxiliaries; the faithful Alani were personally attached to his service; and the troops of Huns and of Goths, who marched under the banners of their native princes Hulden and Sarus, were animated by interest and resentment to oppose the ambition of Radagaisus. The king of the confederate Germans passed, without resistance, the Alps, the Po, and the Apennine; leaving on one hand the inaccessible palace of Honorius, securely buried among the marshes of Ravenna; and on the other, the camp of Stilicho, who had fixed his head quarters at Ticinum, or Pavia, but who seems to have avoided a decisive battle till he had assembled his distant forces. Many cities of Italy were pillaged, or destroyed; and the siege of Florence by Radagaisus is one of the earliest events in the history of that celebrated republic, whose firmness checked and delayed the unskilful fury of the barbarians. The senate and people trembled at their approach within 180 miles of Rome, and anxiously compared the danger which they had escaped with the new perils to which they were exposed. Alaric was a Christian and a soldier, the leader of a disciplined army; who understood the laws of war, who respected the sanctity of treaties, and who had familiarly conversed with the subjects of the empire in the same camps and the same churches. The savage Radagaisus was a stranger to the manners, the religion, and even the language, of the civilized nations of the south. The fierceness of his temper was exasperated by cruel superstition; and it was universally believed, that he had bound himself by a solemn vow to reduce the city into a heap of stones and ashes, and to sacrifice the most illustrious of the Roman senators on the altars of those gods who were appeased by human blood. The public danger, which should have reconciled all domestic animosities, displayed the incurable madness of religious faction. The oppressed votaries of Jupiter and Mercury respected, in the implacable enemy of Rome, the character of a devout pagan; loudly declared, that they were more apprehensive of the sacrifices than of the arms of Radagaisus; and secretly rejoiced in the calamities of their country, which condemned the faith of their Christian adversaries.

449 Defeated and destroyed by Stilicho.

"Florence was reduced to the last extremity; and the fainting courage of the citizens was supported only by the authority of St Ambrose, who had communicated in a dream the promise of a speedy deliverance. On a sudden they beheld from the walls the banners of Stilicho, who advanced with his united force to the relief of the faithful city; and who soon marked that fatal spot for the grave of the barbarian host. The apparent contradictions of those writers who variously relate the defeat of Radagaisus, may be reconciled without offering much violence to their respective testimonies. Orosius and Augustin, who were intimately connected by friendship and religion, ascribe this miraculous victory to the providence of God rather than to the valour of man. They strictly exclude every idea of chance, or even of bloodshed; and positively affirm, that the Romans, whose camp was the scene of plenty and idleness, enjoyed the distress of the barbarians, slowly expiring on the sharp and barren ridge of the hills of Fæsulæ, which rise above the city of Florence. Their extravagant assertion, that not a single soldier of the Christian army was killed, or even wounded, may be dismissed with silent contempt; but the rest of the narrative of Augustin and Orosius is consistent with the state of the war and the character of Stilicho. Conscious that he commanded the last army of the republic, his prudence would not expose it in the open field to the headstrong fury of the Germans. The method of surrounding the enemy with strong lines of circumvallation, which he had twice employed against the Gothic king, was repeated on a larger scale, and with more considerable effect. The examples of Cæsar must have been familiar to the most illiterate of the Roman warriors; and the fortifications of Dyrrhachium, which connected 24 castles by a perpetual ditch and rampart of 15 miles, afforded the model of an intrenchment which might confine and starve the most numerous host of barbarians. The Roman troops had less degenerated from the industry than from the valour of their ancestors; and if the servile and laborious work offended the pride of the soldiers, Tuscany could supply many thousand peasants, who would labour, though perhaps they would not fight, for the salvation of their native country.—The imprisoned multitude of horses and men was gradually destroyed by famine, rather than by the sword; but the Romans were exposed, during the progress of such an extensive work, to the frequent attacks of an impatient enemy. The despair of the hungry barbarians would precipitate them against the fortifications of Stilicho; the general might sometimes indulge the ardour of his brave auxiliaries, who eagerly pressed to assault the camp of the Germans; and these various incidents might produce the sharp and bloody conflicts which dignify the narrative of Zosimus, and the Chronicles of Prosper and Marcellinus. A seasonable supply of men and provisions had been introduced into the walls of Florence; and the famished host of Radagaisus was in its turn besieged. The proud monarch of so many warlike nations, after the loss of his bravest warriors, was reduced to confide either in the faith of a capitulation, or in the clemency of Stilicho. But the death of the royal captive, who was ignominiously beheaded, disgraced the triumph of Rome and of Christianity; and the short delay of his execution was sufficient to brand the conqueror with the guilt of cool and deliberate cruelty. The famished Germans who escaped the fury of the auxiliaries were sold as slaves, at the contemptible price of as many single pieces of gold; but the difference of food and climate swept away great numbers of those unhappy strangers; and it was observed, that the inhuman purchasers, instead of reaping the fruit of their labour, were soon obliged to add to it the expence of interring them.

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them. Stilicho informed the emperor and the senate of his success; and deserved a second time the glorious title of *Deliverer of Italy*.

"The fame of the victory, and more especially of the miracle, has encouraged a vain persuasion, that the whole army, or rather nation of Germans, who migrated from the shores of the Baltic, miserably perished under the walls of Florence. Such indeed was the fate of Radagaisus himself, of his brave and faithful companions, and of more than one-third of the various multitude of Sueves and Vandals, of Alani and Burgundians, who adhered to the standard of their general. The union of such an army might excite our surprise, but the causes of separation are obvious and forcible; they were the pride of birth, the insolence of valour, the jealousy of command, the impatience of subordination, and the obstinate conflict of opinions, of interests, and of passions, among so many kings and warriors, who were untaught to yield or to obey. After the defeat of Radagaisus, two parts of the German host, which must have exceeded the number of 100,000 men, still remained in arms between the Apennine and the Alps, or between the Alps and the Danube. It is uncertain whether they attempted to revenge the death of their general: but their irregular fury was soon diverted by the prudence and firmness of Stilicho, who opposed their march, and facilitated their retreat; who considered the safety of Rome and Italy as the great object of his care, and who sacrificed with too much indifference the wealth and tranquillity of the distant provinces. The barbarians acquired, from the junction of some Pannonian deserters, the knowledge of the country and of the roads; and the invasion of Gaul, which Alaric had designed, was executed by the remains of the great army of Radagaisus.

450 Account of the remainder of the army of Radagaisus.

"Yet if they expected to derive any assistance from the tribes of Germany who inhabited the banks of the Rhine, their hopes were disappointed. The Alemanni preserved a state of inactive neutrality; and the Franks distinguished their zeal and courage in the defence of the empire. In the rapid progress down the Rhine, which was the first act of the administration of Stilicho, he had applied himself with peculiar attention to secure the alliance of the warlike Franks, and to remove the irreconcileable enemies of peace and of the republic. Marcomir, one of their kings, was publicly convicted before the tribunal of the Roman magistrate, of violating the faith of treaties. He was sentenced to a mild, but distant exile, in the province of Tuscany; and this degradation of the regal dignity was so far from exciting the resentment of his subjects, that they punished with death the turbulent Sunno, who attempted to revenge his brother, and maintained a dutiful allegiance to the princes who were established on the throne by the choice of Stilicho. When the limits of Gaul and Germany were shaken by the northern emigration, the Franks bravely encountered the single force of the Vandals; who, regardless of the lessons of adversity, had again separated their troops from the standard of their barbarian allies. They paid the penalty of their rashness: and 20,000 Vandals, with their king Godigiselus, were slain in the field of battle. The whole people must have been extirpated, if the squadrons of the Alani, advancing to their relief, had not trampled down the infantry of the Franks; who, after an honourable resistance, were compelled to relinquish the unequal contest. The victorious confederates pursued their march; and on the last day of the year, in a season when the waters of the Rhine were most probably frozen, they entered without opposition the defenceless provinces of Gaul. This memorable passage of the Suevi, the Vandals, the Alani, and the Burgundians, who never afterwards retreated, may be considered as the fall of the Roman empire in the countries beyond the Alps; and the barriers, which had so long separated the savage and the civilized nations of the earth, were from that fatal moment levelled with the ground.

451 The Vandals defeated by the Franks.

"While the peace of Germany was secured by the attachment of the Franks and the neutrality of the Alemanni, the subjects of Rome, unconscious of their approaching calamities, enjoyed a state of quiet and prosperity, which had seldom blessed the frontiers of Gaul. Their flocks and herds were permitted to graze in the pastures of the barbarians; their huntsmen penetrated, without fear or danger, into the darkest recesses of the Hercynian wood. The banks of the Rhine were crowned, like those of the Tiber, with elegant houses and well cultivated farms; and if a poet descended the river, he might express his doubt on which side was situated the territory of the Romans. This scene of peace and plenty was suddenly changed into a desert, and the prospect of the smoking ruins could alone distinguish the solitude of nature from the desolation of man. The flourishing city of Mentz was surprised and destroyed; and many thousand Christians were inhumanly massacred in the church. Worms perished after a long and obstinate siege: Strasburg, Spires, Rheims, Tournay, Aras, Amiens, experienced the cruel oppression of the German yoke, and the consuming flames of war spread from the banks of the Rhine over the greatest part of the 17 provinces of Gaul. That rich and extensive country, as far as the ocean, the Alps, and the Pyrenees, was delivered to the barbarians, who drove before them, in a promiscuous crowd, the bishop, the senator, and the virgin, laden with the spoils of their houses and altars."

452 Gaul ravaged by the barbarians.

In the midst of these calamities a revolt happened in Britain, where one Constantine, a common soldier, was raised to the imperial throne, merely for the sake of his name. However, he seems to have been a man of considerable abilities, and by no means unfit for the high dignity to which he was raised. He governed Britain with great prosperity; passed over into Gaul and Spain, the inhabitants of which submitted without opposition, being glad of any protector whatever from the barbarians. Honorius, incapable of defending the empire, or repressing the revolt, was obliged to acknowledge him for his partner in the empire. In the mean time, Alaric, with his Goths, threatened a new invasion unless he was paid a certain sum of money. Stilicho is said to have occasioned this demand, and to have insisted upon sending him the money he demanded; and this was the cause of his disgrace and death, which happened soon after, with the extirpation of his family and friends. Nay, such was the general hatred of this unfortunate minister, that the soldiers quartered in the cities of Italy no sooner heard of his death, than they murdered the wives and children of the barbarians whom Stilicho had taken into the service of Honorius. The enraged husbands went over to Alaric, who made a new

453 Revolt of Constantine, whom Honorius acknowledges as his partner in the empire.

454 Stilicho disgraced and put to death.

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new demand of money; which not being readily sent, he laid siege to Rome, and would have taken it, had not the emperor complied with his demand. The ransom of the city was 5000 pounds of gold, 30,000 of silver, 4000 silk garments, 3000 skins dyed purple, and 3000 pounds of pepper. On this occasion the heathen temples were stripped of their remaining ornaments, and among others of the statue of Valour; which the pagans did not fail to interpret as a presage of the speedy ruin of the state.

455 Rome taken and plundered by Alaric.

Alaric having received this treasure, departed for a short time: but soon after he again blocked up the city with a numerous army; and again an accommodation with Honorius was set on foot. However, for some reasons which do not clearly appear, the treaty was broken off, Rome was a third time besieged, and at last taken and plundered. Alaric, when upon the point of breaking into the city, addressing his soldiers, told them that all the wealth in it was theirs, and therefore he gave them full liberty to seize it; but at the same time he strictly enjoined them to shed the blood of none but such as they should find in arms; and above all, to spare those who should take sanctuary in the holy places, especially in the churches of the apostles St Peter and St Paul; which he named, because they were most spacious, and consequently capable of affording an asylum to great numbers of people. Having given these orders, he abandoned the city to his Goths, who treated it no better, according to St Jerome, than the Greeks are said to have treated ancient Troy; for after having plundered it for the space of three, or, as others will have it, of six days, they set fire to it in several places; so that the stately palace of Sallust, and many other magnificent buildings, were reduced to ashes; nay, Procopius writes, that there was not in the whole city one house left entire; and both St Jerome and Philostorgius assert, that the great metropolis of the empire was reduced to a heap of ashes and ruins. Though many of the Goths, pursuant to the orders of their general, refrained from shedding the blood of such as made no resistance; yet others, more cruel and blood-thirsty, massacred all they met; so that the streets in some quarters of the city were seen covered with dead bodies, and swimming in blood. However, not the least injury was offered to those who fled to the churches; nay, the Goths themselves conveyed thither, as to places of safety, such as they were desirous should be spared. Many of the statues of the gods that had been left entire by the emperors as excellent pieces of art, were on this occasion destroyed, either by the Goths, who, though mostly Arians, were zealous Christians, or by a dreadful storm of thunder and lightning which fell at the same time upon the city, as if it had been sent on purpose to complete with them the destruction of idolatry, and abolish the small remains of pagan superstition. Notwithstanding these accounts, some affirm that the city suffered very little at this time, and even not so much as when it was taken by Charles V.

456 Death of that conqueror.

Alaric did not so long survive the taking of Rome, being cut off by a violent fit of sickness in the neighbourhood of Rheginm. After his death the affairs of Honorius seemed a little to revive by the defeat and death of Constantine and some other usurpers; but the provinces of Gaul, Britain, and Spain, were now almost entirely occupied by barbarians; in which state they continued till the death of Honorius, which happened in the year 423, after an unfortunate reign of 28 years.

After some usurpations which took place on the death of Honorius, his nephew Valentinian III. was declared emperor of the west, and his mother Placidia regent during his minority. He was scarce seated on the throne, when the empire was attacked by the Huns under the celebrated Attila. The Romans, however, wretched and degenerate as they were, had they been unanimous, would even yet have been superior to their enemies. The empress then had two celebrated generals, Bonifacius and Aetius; who by their union might have saved the empire: but unhappily, through the treachery of Aetius, Bonifacius was obliged to revolt: and a civil war ensued, in which he lost his life. Aetius, however, notwithstanding his treachery, was pardoned, and put at the head of the forces of the empire. He defended it against Attila with great spirit and success, notwithstanding the deplorable situation of affairs, till he was murdered by Valentinian with his own hand, on a suspicion that he aspired to the empire. But in the meantime the provinces, except Italy itself, were totally overrun by the barbarians. Genseric king of the Vandals ravaged Africa and Sicily; the Goths, Suevians, Burgundians, &c. had taken possession of Gaul and Spain; and the Britons were oppressed by the Scots and Picts, so that they were obliged to call in the Saxons to their assistance, as is related under the article ENGLAND In the year 455, Valentinian was murdered by one Maximus, whose wife he had ravished. Maximus immediately assumed the empire; but felt such violent anxieties, that he designed to resign it and fly out of Italy, in order to enjoy the quiet of a private life. However, being dissuaded from this by his friends, and his own wife dying soon after, he forced the empress Eudoxia to marry him. Eudoxia, who had tenderly loved Valentinian, provoked beyond measure at being married to his murderer, invited Genseric king of the Vandals into Italy. This proved a most fatal scheme: for Genseric immediately appeared before Rome; a violent tumult ensued, in which Maximus lost his life; and the city was taken and plundered by Genseric, who carried off what had been left by the Goths. A vessel was loaded with costly statues; half the covering of the capitol, which was of brass plated over with gold; sacred vessels enriched with precious stones; and those which had been taken by Titus out of the temple of Jerusalem; all of which were lost with the vessel in its passage to Africa.

457 Rome taken and plundered by Genseric,

Nothing could now be more deplorable than the state of the Roman affairs: nevertheless, the empire continued to exist for some years longer; and even seemed to revive for a little under Marjorianus, who was declared emperor in 458. He was a man of great courage, and possessed of many other excellent qualities. He defeated the Vandals, and drove them out of Italy. With great labour he fitted out a fleet, of which the Romans had been long destitute. With this he designed to pass over into Africa; but it being surprised and burnt by the enemy, he himself was soon after murdered by one Ricimer a Goth, who had long governed every thing with an absolute sway. After the death of Marjorianus, one Anthemius was raised to the empire: but beginning to counteract Ricimer, the latter openly

458 and by Ricimer.

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openly revolted, besieged and took Rome; where he committed innumerable cruelties, among the rest putting to death the unhappy emperor Anthemius, and raising one Olybius to the empire. The transactions of his reign were very few, as he died soon after his accession. On his death, one Glycerius usurped the empire. He was deposed in 474, and one Julius Nepos had the name of *emperor*. He was driven out the next year by his general Orestes, who caused his son Augustus or Augustulus to be proclaimed emperor. But the following year, 476, the barbarians who served in the Roman armies, and were distinguished with the title of allies, demanded, as a reward for their services, the third part of the lands in Italy; pretending, that the whole country, which they had so often defended, belonged of right to them. As Orestes refused to comply with this insolent demand, they resolved to do themselves justice, as they called it; and openly revolting, chose one Odoacer for their leader. Odoacer was, according to Ennodius, meanly born, and only a private man in the guards of the emperor Augustulus, when the barbarians revolting chose him for their leader. He is said to have been a man of uncommon parts, equally capable of commanding an army and governing a state. Having left his own country when he was yet very young, to serve in Italy, as he was of a stature remarkably tall, he was admitted among the emperor's guards, and continued in that station till the present year; when, putting himself at the head of the barbarians in the Roman pay, who, though of different nations, had, with one consent, chosen him for their leader, he marched against Orestes and his son Augustulus, who still refused to give them any share of the lands in Italy.

459 Total failure of the empire.

As the Roman troops were inferior, both in number and valour, to the barbarians, Orestes took refuge in Pavia, at that time one of the best fortified cities in Italy: but Odoacer, investing the place without loss of time, took it soon after by assault, gave it up to be plundered by the soldiers, and then set fire to it; which reduced most of the houses, and two churches, to ashes. Orestes was taken prisoner, and brought to Odoacer, who carried him to Placentia, and there caused him to be put to death, on the 28th of August, the day on which he had driven Nepos out of Ravenna, and obliged him to abandon the empire. From Placentia, Odoacer marched straight to Ravenna, where he found Paul, the brother of Orestes, and the young emperor Augustulus. The former he immediately put to death; but sparing Augustulus, in consideration of his youth, he stripped him of the ensigns of the imperial dignity, and confined him to Lucullanum, a castle in Campania; where he was by Odoacer's orders, treated with great humanity, and allowed an handsome maintenance to support himself and his relations. Rome readily submitted to the conqueror, who immediately caused himself to be proclaimed King of Italy, but would not assume the purple, or any other mark of the imperial dignity. Thus failed the very name of an empire in the West. Britain had been long since abandoned by the Romans; Spain was held by the Goths and Suevans; Africa, by the Vandals; the Burgundians, Goths, Franks, and Alans, had erected several tetrarchies in Gaul; at length Italy itself, with its proud metropolis, which for so many ages had given law to the rest of the world, was enslaved by a contemptible barbarian, whose family, country, and nation, are not well known to this day.

From this time, Rome has ceased to be the capital of an empire; the territories of the pope, to whom the city is now subject, being inconsiderable. The origin of the pope's temporal power, and the revolutions of Italy, are related under the article ITALY; and a sketch of the spiritual usurpations of the popes may be seen under the articles HISTORY, sect. ii. and REFORMATION; and likewise under the various historical articles as they occur in the course of this work.

460 Description of modern Rome.

It is thought that the walls of modern Rome take in nearly the same extent of ground as the ancient; but the difference between the number of buildings on this spot is very great, one half of modern Rome lying waste, or occupied with gardens, fields, meadows, and vineyards. One may walk quite round the city in three or four hours at most, the circumference being reckoned about 13 Italian miles. With regard to the number of the inhabitants, modern Rome is also greatly inferior to the ancient; for, in 1709, the whole of these amounted only to 138,568; among which were 40 bishops, 2686 priests, 3559 monks, 1814 nuns, 393 courtesans, about 8000 or 9000 Jews, and 14 Moors. In 1791 they were estimated at 106,000, and in 1813, at 100,000 only. This reduction is ascribed partly to the political revolutions the town has lately experienced, but in a greater degree to the malaria, or insalubrity of the atmosphere, which has desolated the surrounding country, and is investing the city itself, (see Edin. Review, xxviii. p. 57). In the beauty of its temples and palaces, modern Rome is thought by the most judicious travellers to excel the ancient. There was nothing in ancient Rome to be compared with St Peter's church in the modern city. That Rome was able to recover itself after so many calamities and devastations, will not be matter of surprise, if we consider the prodigious sums that it has so long annually drawn from all countries of the Popish persuasion. These sums, though still considerable, have been continually decreasing since the Reformation. The surface of the ground on which Rome was originally founded is surprisingly altered. At present it is difficult to distinguish the seven hills on which it was first built, the low grounds being almost filled up with the ruins of the ancient streets and houses, and the great quantities of earth washed down by the rains. Anciently the suburbs extended a vast way on all sides, and made the city appear almost boundless; but it is quite otherwise now, the country about Rome being almost a desert. No city at present in the world surpasses, or indeed equals Rome, for the multiplicity of fine fountains, noble edifices, antiquities, curiosities, paintings, statues, and sculptures. The city stands on the Tiber, 10 miles from the Tuscan sea, 380 from Vienna, 560 from Paris, 740 from Amsterdam, 810 from London, and 900 from Madrid. The Tiber is subject to frequent inundations, by which it often does great damage. A small part of the city is separated from the other by the river, and is therefore called *Travestere*, or beyond the Tiber. There are several bridges over the river, a great number of towers on the walls, and 20 gates. The remains of Rome's ancient grandeur consist of statues, colossuses, temples, palaces, theatres, naumachias, triumphal arches, circuses, columns, obelisks, fountains, aqueducts, mausoleums, ther-

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mæ or hot baths, and other structures. Of modern buildings, the splendid churches and palaces are the most remarkable. Mr Addison says, it is almost impossible for a man to form in his imagination such beautiful and glorious scenes as are to be met with in several of the Roman churches and chapels. This gentleman tells us also, that no part of the antiquities of Rome pleased him so much as the ancient statues, of which there is still an incredible variety. Next to the statues, he says, there is nothing more surprising than the amazing variety of ancient pillars of so many kinds of marble. Rome is said to be well paved; but not well lighted, nor kept very clean. Two-thirds of the houses are the property of the churches, convents, and alms houses. Protestants are not obliged to kneel at the elevation of the host, or at meeting the eucharist in the streets; and they may have flesh-meat always at the inns, even during Lent. Here are many academies for promoting arts and sciences, besides the university. The carnival here is only during the eight days before Lent, and there are no such scenes of riot as at Venice: prostitutes, however, are publicly tolerated. To maintain good order, there is a body of 300 Sbirri, or Halberdeers, under their barigella, or colonel. There is little or no trade carried on in Rome, but a vast deal of money is spent by travellers and other strangers. The principal modern structures are the church of St Peter, and the other churches; the aqueducts and fountains; the Vatican, and the other palaces; the Campidolio, where the Roman senate resides, &c. The principal remains of antiquity are the pila miliaria of fine marble; the equestrian brass statue of Marcus Aurelius Antoninus; the marble monument of the emperor Alexander Severus; marble busts of the emperors and their consorts; three brick arches of the temple of Peace, built by the emperor Vespasian; the triumphal arch of Septimus Severus and of Gallienus; the circus of Antoninus Caracalla; some parts of the cloaca maxima; the columna Antonina, representing the principal actions of Marcus Aurelius; the columna Trajani, or Trajan's pillar; some fragments of the curia or palace of Antoninus Pius, and of Nerva's forum; the mausoleum of Augustus, in the Strada Pontifici; the remains of the emperor Severus's tomb without St John's gate; the pyramid of Caius Cestius near St Paul's gate; the porphyry coffin of St Helen, and the original statue of Constantine the Great, in the church of St John of Lateran: a font of oriental granite, in the chapel of St Giovanni in fonte, said to have been erected by Constantine the Great; an Egyptian obelisk near the church of St Maria Maggiore; the stately remains of Dioclesian's baths; the celebrated Pantheon; the obelisks of Sesostris and Augustus by the Clementine college; the church of St Paul fuori della Mura, said to have been built by Constantine the Great; the Farnese Hercules, in white marble, of a colossal size and exquisite workmanship, in a court of the Farnese palace, and an admirable group cut out of one block of marble, in another court of the same palace. Besides these there are a great many more, which our bounds will not allow us to take any further notice of. Here is a great number of rich and well-regulated hospitals. Near the church of St Sebastiano alle Catacombe, are the most spacious of the catacombs, where the Christians, who never burned their dead, and such of the Pagan Romans as could not afford the expence of burning, were buried. Along the Via Appia, without St Sebastian's gate, were the tombs of the principal families of Rome, which at present are used for cellars and store-houses, by the gardeners and vine-dressers.

Rome was entered, in February 1798, by the French, and in consequence of a tumult which ensued, when their general Duphot was killed, they deposed the pope, abolished the papal government, and erected in its stead a republic, to which they gave the designation of the Roman republic. They sent the pope himself to France, where he died on his various removals; they likewise sent away great numbers of the most valuable statues and paintings of antiquity, and compelled the inhabitants to pay heavy contributions. In the month of September 1799, the allies retook this city, and the new French government was overthrown. It was afterwards obliged to yield to the insatiable ambition of Bonaparte, and formed a part of his dominions till the overthrow of his power in 1815, when the pope was replaced.

ROMNEY, a town of Kent in England. It is one of the cinque-port towns, and is seated on a marsh of the same name, famous for feeding cattle; but the air is very unhealthy. It was once a large and populous place, but the retiring of the sea has reduced it very much; it sends two members to parliament.

ROMORANTIN, is a town of France situated on the river Saudre, in the department of Loire and Cher, containing 5730 inhabitants, in 1800, and long famous for its woollen manufacture. It is said to be a very ancient place; and the inhabitants pretend that Cæsar built a tower here, of which there are still some considerable remains. They have a manufacture of serge and cloth, which is used for the clothing of the troops.

ROMPEE, or Rompu, in *Heraldry*, is applied to ordinaries that are represented as broken; and to chevrons, bends, or the like, whose upper points are cut off.

ROMULUS, the founder and first king of Rome, See Rome, N° 14.

RONCIGLIONE, is a small town of Italy, in the Ecclesiastic State, and Patrimony of St Peter, in E. Long. 12. 8. N. Lat. 42. and 25 miles N. from Rome. It had a pretty good trade, and was one of the richest in the province, while it belonged to the dukes of Parma, which was till 1649, when Pope Innocent X. became master of it, and it has ever since continued in the possession of his successors.

RONDELETIA, a genus of plants belonging to the pentandria class, and in the natural method ranking with those of which the order is doubtful. See Botany *Index*.

RONA, one of the Hebrides islands, is reckoned about 20 leagues distant from the north-east point of Ness in Lewis—and is about a mile long, and half a mile broad. It has a hill in the west part, and is only visible from Lewis in a fair summer's day. There is a chapel in the island dedicated to St Ronan, fenced with a stone wall round it. This church the natives take care to keep very neat and clean, and sweep it every day. There is an altar in it, in which there lies a big plank of wood about 10 feet long. Every foot has a hole

hole in it, and in every hole is a stone, to which the natives ascribe several virtues; one of them is singular (as they say) for promoting speedy delivery to a woman in travail. The inhabitants are extremely ignorant, and very superstitious. See *Martin's Description*.

RONSARD, Peter de, a French poet, was born at the castle of Poissoniere in Vendomois in 1524. He was descended of a noble family, and was educated at Paris in the college of Navarre. Academical pursuits not suiting his genius, he left college, and became page to the duke of Orleans, who resigned him to James Stuart, king of Scots, married to Magdalene of France. Ronsard continued in Scotland with King James upwards of two years, and afterwards went to France, where he was employed by the duke of Orleans in several negociations. He accompanied Lazarus de Baif to the diet of Spires. Having from the conversation of this learned man imbibed a passion for the belles-lettres, he studied the Greek language with Baif's son under Dorat. It is reported of Ronsard, that his practice was to study till two o'clock in the morning; and when he went to bed, to awaken Baif, who resumed his place. The muses possessed in his eyes an infinity of charms; and he cultivated them with such success, that he acquired the appellation of the *Prince of the Poets* of his time. Henry II. Francis II. Charles IX. and Henry III. loaded him with favours. Having gained the first prize of the *Jeux Floraux*, they thought the reward promised below the merit of the work, and the reputation of the poet. The city of Toulouse caused a Minerva of massy silver of considerable value to be made and sent to him. This present was accompanied with a decree, declaring him *The French Poet*, by way of distinction. Ronsard afterwards made a present of his Minerva to Henry II. and this monarch appeared as much elated with this mark of the poet's esteem for him, as the poet himself could have been had he received the present from his sovereign. Mary, the beautiful and unfortunate queen of Scots, who was equally sensible of his merit with the Toulouse, gave him a very rich set of table-plate, among which was a vessel in the form of a rose-bush, representing Mount Parnassus, on the top of which was a Pegasus with this inscription:

A Ronsard, l'Apollon de la source des muses.

From the above two anecdotes of him may easily be inferred the reputation in which he was held, and which he continued to keep till Malherbe appeared. His works possess both invention and genius; but his affectation of everywhere thrusting in his learning, and of forming words from the Greek, the Latin, and the different provincialisms of France, has rendered his versification disagreeable and often unintelligible.

Ronsard, dit Despréaux, par une autre méthode,
Reglant tout, brouilla tout, fit un art à sa mode;
Et toutefois long temps eut un heureux destin;
Mais sa muse, en François parlant Grec et Latin,
Vit dans l'âge suivant, par un retour grotesque,
Tomber de ses grands mots le faste pédantesque.

He wrote hymns, odes, a poem called the *Franciad*, eclogues, epigrams, sonnets, &c. In his odes he takes bombast for poetical raptures. He wishes to imitate Pindar; and by labouring too much for lofty expressions, he loses himself in a cloud of words. He is obscure and harsh to the last degree: faults which he might easily have avoided by studying the works of Marot, who had before he wrote brought French poetry very near to perfection. "Marot's turn and style of composition are such (says Bruyere), that he seems to have written after Ronsard: there is hardly any difference, except in a few words, between Marot and us. Ronsard, and the authors his contemporaries, did more disservice than good to style: they checked its course in the advances it was making towards perfection, and had like to have prevented its ever attaining it. It is surprising that Marot, whose works are so natural and easy, did not make Ronsard, who was fired with the strong enthusiasm of poetry, a greater poet than either Ronsard or Marot." But what could be expected from a man who had so little taste, that he called Marot's works, 'a dunghill, from which rich grains of gold by industrious working might be drawn?' As a specimen of our author's intolerable and ridiculous affectation of learning, which we have already censured, Boileau cites the following verse of Ronsard to his mistress: *Estes-vous pas ma seule entelechie?* 'are not you my only entelechia?' Now *entelechia* is a word peculiar to the peripatetic philosophy, the sense of which does not appear to have ever been fixed. Hermolaus Barbarus is said to have had recourse to the devil, in order to know the meaning of this new term used by Aristotle; but he did not gain the information he wanted, the devil, probably to conceal his ignorance, speaking in a faint and whispering sort of voice. What could Ronsard's mistress, therefore, or even Ronsard himself, know of it; and, what can excuse in a man of real genius the low affectation of using a learned term, because in truth nobody could understand it. He has, however, some pieces not destitute of real merit; and there are perhaps few effusions of the French muse more truly poetical than his Four Seasons of the Year, where a most fertile imagination displays all its riches.

Ronsard, though it is doubtful whether he ever was in orders, held several benefices in commendam; and he died at Saint-Cosme-les-Tours, one of these, December 27. 1585, being then 61 years of age. He appeared more ridiculous as a man than as a poet: he was particularly vain. He talked of nothing but his family and his alliances with crowned heads. In his panegyrics, which he addresses to himself without any ceremony, he has the vanity to pretend, that from *Ronsard* is derived the word *Rosignol*, to denote both a musician and a poet together. He was born the year after the defeat of Francis I. before Pavia: "Just as heaven (said he) wished to indemnify France for the losses it had sustained at that place." He blushed not to tell of his intrigues. All the ladies sought after him; but he never said that any of them gave him a denial of their favours. His immoderate indulgence in pleasure, joined to his literary labours, served to hasten his old age. In his 50th year he was weak and valetudinary, and subject to attacks of the gout. He retained his wit, his vivacity, and his readiness at poetic composition, to his last moments. Like all those who aspire after public esteem, he had a great number of admirers and some enemies. Though Melin de Saint-Gelais railed at him continually, Rabelais was the person whom he most dreaded. He took always care to inform himself where that jovial rector of Meudon went, that he might not be found in the

Ronsard. || Roof.

the same place with him. It is reported that Voltaire acted a similar part with regard to Peron *, of whose extemporary sallies and *bon mots* he was much afraid. Ronsard's poems appeared in 1567 at Paris in 6 vols. 4to, and in 1604 in 10 vols. 12mo.

* See *Peron.*

ROOD, a quantity of land equal to 40 square perches, or the fourth part of an acre.

1 Definition.

ROOF, expresses the covering of a house or building, by which its inhabitants or contents are protected from the injuries of the weather. It is perhaps the essential part of a house, and is frequently used to express the whole. To *come under a person's roof*, is to enjoy his protection and society, to dwell with him. *Tectum* was used in the same sense by the Romans. To be within our walls rather expresses the being in our possession: a roof, therefore, is not only an essential part of a house, but it even seems to be its characteristic feature. The Greeks, who have perhaps excelled all nations in taste, and who have given the most perfect model of architectonic ordonnance within a certain limit, never erected a building which did not exhibit this part in the distinctest manner; and though they borrowed much of their model from the orientals, as will be evident to any who compares their architecture with the ruins of Persepolis, and of the tombs in the mountains of Schiras, they added that form of roof which their own climate taught them was necessary for sheltering them from the rains. The roofs in Persia and Arabia are flat, but those of Greece are without exception sloping. It seems therefore a gross violation of the true principles of taste in architecture (at least in the regions of Europe), to take away or to hide the roof of a house; and it must be ascribed to that rage for novelty which is so powerful in the minds of the rich. Our ancestors seemed to be of a very different opinion, and turned their attention to the ornamenting of their roofs as much as any other part of a building. They showed them in the most conspicuous manner, running them up to a great height, broke them into a thousand fanciful shapes, and stuck them full of highly dressed windows. We laugh at this, and call it Gothic and clumsy; and our great architects, not to offend any more in this way, conceal the roof altogether by parapets, balustrades, and other contrivances. Our forefathers certainly did offend against the maxims of true taste, when they enriched a part of a house with marks of elegant habitation, which every spectator must know to be a cumbersome garret: but their successors no less offend, who take off the cover of the house altogether, and make it impossible to know whether it is not a mere skreen or colonnade we are looking at.

2 Strictures on various kinds of roofs.

3 Error of Sir Christopher Wren in the roof of St Paul's, London.

We cannot help thinking that Sir Christopher Wren erred when he so industriously concealed the roof of St Paul's church in London. The whole of the upper order is a mere screen. Such a quantity of wall would have been intolerably offensive, had he not given it some appearance of habitation by the mock windows or niches. Even in this state it is gloomy, and it is odd, and is a puzzle to every spectator—There should be no puzzle in the design of a building any more than in a discourse. It has been said that the double roof of our great churches which have aisles is an incongruity, looking like a house standing on the top of another house. But there is not the least occasion for such a thought. We know that the aisle is a shed, a cloister. Suppose only that the lower roof or shed is hidden by a balustrade, it then becomes a portico, against which the connoisseur has no objection: yet there is no difference; for the portico must have a cover, otherwise it is neither a shed, cloister, nor portico, any more than a building without a roof is a house. A house without a visible roof is like a man abroad without his hat; and we may add, that the whim of concealing the chimneys, now so fashionable, changes a house to a barn or storehouse. A house should not be a copy of any thing. It has a title to be an original; and a screen-like house and a pillar-like candlestick are similar solecisms in taste.

4 Little attention paid by architects to this part of a building.

The architect is anxious to present a fine object, and a very simple outline discusses all his concerns with the roof. He leaves it to the carpenter, whom he frequently puzzles (by his arrangements) with coverings almost impossible to execute. Indeed it is seldom that the idea of a roof is admitted by him into his great compositions; or if he does introduce it, it is from mere affectation, and we may say pedantry. A pediment is frequently stuck up in the middle of a grand front, in a situation where a roof cannot perform its office; for the rain that is supposed to flow down its sides must be received on the top of the level buildings which flank it. This is a manifest incongruity. The tops of dressed windows, trifling porches, and sometimes a projecting portico, are the only situations in which we see the figure of a roof correspond with its office. Having thus lost sight of the principle, it is not surprising that the draughtsman (for he should not be called architect) runs into every whim: and we see pediment within pediment, a round pediment, a hollow pediment, and the greatest of all absurdities, a broken pediment. Nothing could ever reconcile us to the sight of a man with a hat without its crown, because we cannot overlook the use of a hat.

5 Advantages of a high-pitched roof.

But when one builds a house, ornament alone will not do. We must have a cover; and the enormous expence and other great inconveniences which attend the concealment of this cover by parapets, balustrades, and screens, have obliged architects to consider the pent roof as admissible, and to regulate its form. Any man of sense, not under the influence of prejudice, would be determined in this by its fitness for answering its purpose. A high pitched roof will undoubtedly shoot off the rains and snows better than one of a lower pitch. The wind will not so easily blow the dropping rain in between the slates, nor will it have so much power to strip them off. A high-pitched roof will exert a smaller thrust on the walls, both because its strain is less horizontal, and because it will admit of lighter covering. But it is more expensive, because there is more of it. It requires a greater size of timbers to make it equally strong, and it exposes a greater surface to the wind.

6 Remarks on the changes in the pitch of roofs.

There have been great changes in the pitch of roofs; our forefathers made them very high, and we make them very low. It does not, however, appear, that this change has been altogether the effect of principle. In the simple unadorned habitations of private persons, every thing comes to be adjusted by an experience of inconveniences which have resulted from too low pitched roofs; and their pitch will always be nearly such as suits the climate and covering. Our architects, however, go to work on different principles. Their professed

fessed aim is to make a beautiful object. The sources of the pleasures arising from what we call *taste* are so various, so complicated, and even so whimsical, that it is almost in vain to look for principle in the rules adopted by our professed architects. We cannot help thinking, that much of their practice results from a *pedantic* veneration for the beautiful productions of Grecian architecture. Such architects as have written on the principles of the art in respect of proportions, or what they call the ORDONNANCE, are very much puzzled to make a chain of reasoning; and the most that they have made of the Greek architecture is, that it exhibits a nice adjustment of strength and strain. But when we consider the extent of this adjustment, we find that it is wonderfully limited. The whole of it consists of a basement, a column, and an entablature; and the entablature, it is true, exhibits something of a connection with the framework and roof of a wooden building; and we believe that it really originated from this in the hands of the orientals, from whom the Greeks certainly borrowed their forms and their combinations. We could easily show in the ruins of Persepolis, and among the tombs in the mountains (which were long prior to the Greek architecture), the fluted column, the base, the Ionic and Corinthian capital, and the Doric arrangement of lintels, beams, and rafters, all derived from unquestionable principle. The only addition made by the Greeks was the pent roof: and the changes made by them in the subordinate forms of things are such as we should expect from their exquisite judgement of beauty.

7 And of the Greek architecture of them.

But the whole of this is very limited; and the Greeks, after making the roof a chief feature of a house, went no farther, and contented themselves with giving it a slope suited to their climate. This we have followed, because in the milder parts of Europe we have no cogent reason for deviating from it; and if any architect should deviate greatly in a building where the outline is exhibited as beautiful, we should be disgusted; but the disgust, though felt by almost every spectator, has its origin in nothing but habit. In the professed architect or man of education, the disgust arises from pedantry: for there is not such a close connection between the form and uses of a roof as shall give precise determinations; and the mere form is a matter of indifference.

8 Difference between the ancient Greeks and modern roofs;

We should not therefore reprobate the high-pitched roofs of our ancestors, particularly on the continent. It is there where we see them in all the extremity of the fashion, and the taste is by no means exploded as it is with us. A baronial castle in Germany and France is seldom rebuilt in the pure Greek style, or even like the modern houses in Britain; the high-pitched roofs are retained. We should not call them Gothic, and ugly because Gothic, till we show their principle to be false or tasteless. Now we apprehend that it will be found quite the reverse; and that though we cannot bring ourselves to think them beautiful, we ought to think them so. The construction of the Greek architecture is a transference of the practices that are necessary in a wooden building to a building of stone. To this the Greeks have adhered, in spite of innumerable difficulties. Their marble quarries, however, put it in their power to retain the proportions which habit had rendered agreeable. But it is next to impossible to adhere to these proportions with freestone or brick, when the order is of magnificent dimensions. Sir Christopher Wren saw this; for his mechanical knowledge was equal to his taste. He composed the front of St Paul's church in London of two orders, and he coupled his columns; and still the lintels which form the architrave are of such length that they could carry no additional weight, and he was obliged to truss them behind. Had he made but one order, the architrave could not have carried its own weight. It is impossible to excute a Doric entablature of this size in brick. It is attempted in a very noble front, the academy of arts in St Petersburgh. But the architect was obliged to make the mutules and other projecting members of the corniche of granite, and many of them broke down by their own weight.

9 and the effect of our using stone.

Here is surely an error in principle. Since stone is the chief material of our buildings, ought not the members of ornamented architecture to be refinements on the essential and unaffected parts of a simple stone-building. There is almost as much propriety in the architecture of India, where a dome is made in imitation of a lily or other flower inverted, as in the Greek imitation of a wooden building. The principles of masonry, and not of carpentry, should be seen in our architecture, if we would have it according to the rules of just taste. Now we affirm that this is the characteristic feature of what is called the Gothic architecture. In this no dependence is had on the transverse strength of stone. No lintels are to be seen; no extravagant projections. Every stone is pressed to its neighbours, and none is exposed to a transverse strain. The Greeks were enabled to execute their colossal buildings only by using immense blocks of the hardest materials. The Norman mason could raise a building to the skies without using a stone which a labourer could not carry to the top on his back. Their architects studied the principles of equilibrium; and having attained a wonderful knowledge of it, they indulged themselves in exhibiting remarkable instances. We call this false taste, and say that the appearance of insecurity is the greatest fault. But this is owing to our habits: our thoughts may be said to run in a wooden train, and certain simple maxims of carpentry are familiar to our imagination: and in the careful adherence to these consist the beauty and symmetry of the Greek architecture. Had we been as much habituated to the equilibrium of pressure, this apparent insecurity would not have met our eye: we would have perceived the strength and we should have relished the ingenuity.

10 Rational nature of the Gothic architecture.

The Gothic architecture is perhaps intitled to the name of rational architecture, and its beauty is founded on the characteristic distinction of our species. It deserves cultivation: not the pitiful, servile, and unskilled copying of the monuments; this will produce incongruities and absurdities equal to any that have crept into the Greek architecture: but let us examine with attention the nice disposition of the groins and spaundrels; let us study the tracery and knots, not as ornaments, but as useful members; let us observe how they have made their walls like honeycombs, and admire their ingenuity as we pretend to admire the instinct infused by the great Architect into the bee. All this cannot be understood without mechanical knowledge; a thing which few of our professional architects have any share of. Thus would architectonic taste be a mark of skill; and the person who presents the design of a building

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Roof.

ing would know how to execute it, without committing it entirely to the mason and carpenter.

These observations are not a digression from our subject. The same principles of mutual pressure and equilibrium have a place in roofs and many wooden edifices; and if they had been as much studied as the Normans and Saracens seem to have studied such of them as were applicable to their purposes, we might have produced wooden buildings as far superior to what we are familiarly acquainted with, as the bold and wonderful churches still remaining in Europe are superior to the timid productions of our stone architecture. The centres used in building the bridge of Orleans and the corn-market of Paris, are late instances of what may be done in this way. The last mentioned is a dome of 200 feet diameter, built of fir planks; and there is not a piece of timber in it more than nine feet long, a foot broad, and three inches thick.

11 The Norman architects often roofed with stone.

The Norman architects frequently roofed with stone. Their wooden roofs were in general very simple, and their professed aim was to dispense with them altogether. Fond of their own science they copied nothing from a wooden building, and ran into a similar fault with the ancient Greeks. The parts of their buildings which were necessarily of timber were made to imitate stone-buildings; and Gothic ornament consists in cramming every thing full of arches and spaundrels. Nothing else is to be seen in their timber works, nay even in their sculpture. Look at any of the maces or sceptres still to be found about the old cathedrals; they are silver steeples.

12 Effects of the rivalship between the masons and carpenters of ancient times.

But there appears to have been a rivalship in old times between the masons and the carpenters. Many of the baronial halls are of prodigious width, and are roofed with timber: and the carpenters appeared to have borrowed much knowledge from the masons of those times, and their wide roofs are frequently constructed with great ingenuity. Their aim, like the masons, was to throw a roof over a very wide building without employing great logs of timber. We have seen roofs 60 feet wide, without having a piece of timber in it above 10 feet long and 4 inches square. The Parliament house and Tron-church of Edinburgh, and the great hall of Tarnaway castle near Forres, are specimens of those roofs. They are very numerous on the continent. Indeed Britain retains few monuments of private magnificence. Aristocratic state never was so great with us; and the rancour of our civil wars gave most of the performances of the carpenter to the flames. Westminster-hall exhibits a specimen of the false taste of the Norman roofs. It contains the essential parts indeed, very properly disposed; but they are hidden, or intentionally covered, with what is conceived to be ornamental; and this is an imitation of stone arches, crammed in between slender pillars which hang down from the principal frames, trusses, or rafters. In a pure Norman roof, such as Tarnaway-hall, the essential parts are exhibited as things understood, and therefore relished. They are refined and ornamented; and it is here that the inferior kind of taste or the want of it may appear. And here we do not mean to defend all the whims of our ancestors; but we assert that it is no more necessary to consider the members of a roof as things to be concealed like a garret or privy, than the members of a ceiling, which form the most beautiful part of the Greek architecture. Should it be said that a roof is only a thing to keep off the rain, it may be answered, that a ceiling is only to keep off the dust, or the floor to be trodden under foot, and that we should have neither copartments in the one nor inlaid work or carpets on the other. The structure of a roof may therefore be exhibited with propriety, and made an ornamental feature. This has been done even in Italy. The church of St Maria Maggiore in Rome and several others are specimens; but it must be acknowledged that the forms of the principal frames of these roofs, which resemble those of our modern buildings, are very unfit for agreeable ornament. As we have already observed, our imaginations have not been made sufficiently familiar with the principles, and we are rather alarmed than pleased with the appearance of the immense logs of timber which form the couples of these roofs, and hang over our heads with every appearance of weight and danger. It is quite otherwise with the ingenious roofs of the German and Norman architects. Slender timbers, interlaced with great symmetry, and thrown by necessity into figures which are naturally pretty, form altogether an object which no carpenter can view without pleasure. And why should the gentleman refuse himself the same pleasure of beholding scientific ingenuity?

13 Necessity of science in forming roofs;

The roof is in fact the part of the building which requires the greatest degree of skill, and where science will be of more service than in any other part. The architect seldom knows much of the matter, and leaves the task to the carpenter. The carpenter considers the framing of a great roof as the touchstone of his art; and nothing indeed tends so much to show his judgment and his fertility of resource.

It must therefore be very acceptable to the artist to have a clear view of the principles by which this difficult problem may be solved in the best manner, so that the roof may have all the strength and security that can be wished for, without an extravagant expence of timber and iron. We have said that mechanical science can give great assistance in this matter. We may add that the framing of carpentry, whether for roofs, floors, or any other purpose, affords one of the most elegant and most satisfactory applications which can be made of mechanical science to the arts of common life. Unfortunately the practical artist is seldom possessed even of the small portion of science which would almost insure his practice from all risk of failure; and even our most experienced carpenters have seldom any more knowledge than what arises from their experience and natural sagacity. The most approved author in our language is Price in his British Carpenter. Mathurin Jousse is in like manner the author most in repute in France; and the publications of both these authors are void of every appearance of principle. It is not uncommon to see the works of carpenters of the greatest reputation tumble down, in consequence of mistakes from which the most elementary knowledge would have saved them.

14 and the little attention hitherto paid to it.

15 Purpose of this article.

We shall attempt, in this article, to give an account of the leading principles of this art in a manner so familiar and palpable, that any person who knows the common properties of the lever, and the composition of motion, shall so far understand them as to be able, on every occasion, so to dispose his materials, with respect to the strains to which they are to be exposed, that he shall always

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always known the effective strain on every piece, and shall, in most cases, be able to make the disposition such as to derive the greatest possible advantage from the materials which he employs.

16 Principles which regulate the strength of the materials.

It is evident that the whole must depend on the principles which regulate the strength of the materials, relative to the manner in which this strength is exerted, and the manner in which the strain is laid on the piece of matter. With respect to the first, this is not the proper place for considering it, and we must refer the reader to the article *Strength of Materials in Mechanics*. We shall just borrow from that article two or three propositions suited to our purpose.

The force with which the materials of our edifices, roofs, floors, machines, and framings of every kind resist being broken or crushed, or pulled asunder, is immediately or ultimately, the cohesion of their particles. When a weight hangs by a rope, it tends either immediately to break all the fibres, overcoming the cohesion among the particles of each, or it tends to pull one parcel of them from among the rest, with which they are joined. This union of the fibres is brought about by some kind of gluten, or by twisting, which causes them to bind each other so hard that any one will break rather than come out, so much is it withheld by friction. The ultimate resistance is therefore the cohesion of the fibre; the force or strength of all fibrous materials, such as timber, is exerted in much the same manner. The fibres are either broken or pulled out from among the rest. Metals, stone, glass, and the like, resist being pulled asunder by the simple cohesion of their parts.

The force which is necessary for breaking a rope or wire is a proper measure of its strength. In like manner, the force necessary for tearing directly asunder any rod of wood or metal, breaking all its fibres, or tearing them from among each other, is a proper measure of the united strength of all these fibres. And it is the simplest strain to which they can be exposed, being just equal to the sum of the forces necessary for breaking or disengaging each fibre. And, if the body is not of a fibrous structure, which is the case with metals, stones, glass, and many other substances, this force is still equal to the simple sum of the cohesive forces of each particle which is separated by the fracture. Let us distinguish this mode of exertion of the cohesion of the body by the name of its Absolute Strength.

When solid bodies are, on the contrary, exposed to great compression, they can resist only a certain degree. A piece of clay or lead will be squeezed out; a piece of freestone will be crushed to powder; a beam of wood will be crippled, swelling out in the middle, and its fibres lose their mutual cohesion, after which it is easily crushed by the load. A notion may be formed of the manner in which these strains are resisted by conceiving a cylindrical pipe filled with small shot, well shaken together, so that each sphericle is lying in the closest manner possible, that is, in contact with six others in the same vertical plane (this being the position in which the shot will take the least room). Thus each touches the rest in six points: Now suppose them all united, in these six points only, by some cement. This assemblage will stick together and form a cylindrical pillar, which may be taken out of its mould. Suppose this pillar standing upright, and loaded above. The supports arising from the cement act obliquely, and the load tends either to force them asunder laterally, or to make them slide on each other: either of these things happening, the whole is crushed to pieces. The resistance of fibrous materials to such a strain is a little more intricate, but may be explained in a way very similar.

A piece of matter of any kind may also be destroyed by wrenching or twisting it. We can easily form a notion of its resistance to this kind of strain by considering what would happen to the cylinder of small shot if treated in this way.

And lastly, a beam, or a bar of metal, or piece of stone or other matter, may be broken transversely. This will happen to a rafter or joist supported at the ends when overloaded, or to a beam having one end stuck fast in a wall and a load laid on its projecting part. This is the strain to which materials are most commonly exposed in roofs; and, unfortunately, it is the strain which they are the least able to bear; or rather it is the manner of application which causes an external force to excite the greatest possible immediate strain on the particles. It is against this that the carpenter must chiefly guard, avoiding it when in his power, and in every case, diminishing it as much as possible. It is necessary to give the reader a clear notion of the great weakness of materials in relation to this transverse strain. But we shall do nothing more, referring him to the articles Strain, Stress, and Strength.

17 Their weakness in relation to transverse strains.

Plate CCCCLXIII.

Let ABCD (fig. 1.) represent the side of a beam projecting horizontally from a wall in which it is firmly fixed, and let it be loaded with a weight W appended to its extremity. This tends to break it; and the least reflection will convince any person that if the beam is equally strong throughout, it will break in the line CD, even with the surface of the wall. It will open at D, while C will serve as a sort of joint, round which it will turn. The cross section through the line CD is, for this reason, called the *section of fracture*, and the horizontal line, drawn through C on its under surface, is called the *axis of fracture*. The fracture is made by tearing asunder the fibres, such as DE or FG. Let us suppose a real joint at C, and that the beam is really sawed through along CD, and that in place of its natural fibres threads are substituted all over the section of fracture. The weight now tends to break these threads; and it is our business to find the force necessary for this purpose.

It is evident that DCA may be considered as a bended lever, of which C is the fulcrum. If f be the force which will just balance the cohesion of a thread when hung on it so that the smallest addition will break it, we may find the weight which will be sufficient for this purpose when hung on at A, by saying, AC : CD $= f : \varphi$, and φ will be the weight which will just break the thread, by hanging φ by the point A. This gives us $\varphi = f \times \frac{CD}{CA}$. If the weight be hung on at a, the force just sufficient for breaking the same thread will be $= f \frac{CD}{Ca}$. In like manner the force φ, which must be hung on at A in order to break an equally strong or an equally

equally resisting fibre at F, must be $=f\times\frac{CF}{CA}$ And so on all of the rest.

If we suppose all the fibres to exert equal resistances at the instant of fracture, we know, from the simplest elements of mechanics, that the resistance of all the particles in the line CD, each acting equally in its own place, is the same as if all the individual resistances were united in the middle point g. Now this total resistance is the resistance or strength f of each particle, multiplied by the number of particles. This number may be expressed by the line CD, because we have no reason to suppose that they are at unequal distances. Therefore, in comparing different sections together, the number of particles in each are as the sections themselves. Therefore DC may represent the number of particles in the line DC. Let us call this line the depth of the beam, and express it by the symbol d. And since we are at present treating of roofs whose rafters and other parts are commonly of uniform breadth, let us call AH or BI the breadth of the beam, and express it by b, and let CA be called its length, l. We may now express the strength of the whole line CD by $f\times d$, and we may suppose it all concentrated in the middle point g. Its mechanical energy, therefore, by which it resists the energy of the weight w, applied at the distance l, is f.CD.C g, while the momentum of w is w. CA. We must therefore have f. CD. C$g=w$. CA, or $f\,d.\,\frac{1}{2}\,d=w.\,l$, and $f\,d:w=l:\frac{1}{2}\,d$, or $f\,d:w=2\,l:d$. That is, twice the length of the beam is to its depth as the absolute strength of one of its vertical planes to its relative strength, or its power of resisting this transverse fracture.

It is evident, that what has been now demonstrated of the resistance exerted in the line CD, is equally true of every line parallel to CD in the thickness or breadth of the beam. The absolute strength of the whole section of fracture is properly represented by $f.\,d.\,b$, and we still have $2\,l:d=f\,d\,b:w$; or twice the length of the beam is to its depth as the absolute strength to the relative strength. Suppose the beam 12 feet long and one foot deep; then whatever be its absolute strength, the 24th part of this will break it if hung at its extremity.

But even this is too favourable a statement; all the fibres are supposed to act alike in the instant of fracture. But this is not true. At the instant that the fibre at D breaks, it is stretched to the utmost, and is exerting its whole force. But at this instant the fibre at g is not so much stretched, and it is not then exerting its utmost force. If we suppose the extension of the fibres to be as their distance from C, and the actual exertion of each to be as their extensions, it may easily be shown (see STRENGTH and STRAIN), that the whole resistance is the same as if the full force of all the fibres were united at a point r distant from C by one-third of CD. In this case we must say, that the absolute strength is to the relative strength as three times the length to the depth; so that the beam is weaker than by the former statement in the proportion of two to three.

Even this is more strength than experiment justifies; and we can see an evident reason for it. When the beam is strained, not only are the upper fibres stretched, but the lower fibres are compressed. This is very distinctly seen, if we attempt to break a piece of cork cut into the shape of a beam: this being the case, C is not the centre of fracture. There is some point c which lies between the fibres which are stretched and those that are compressed. This fibre is neither stretched nor squeezed; and this point is the real centre of fracture: and the lever by which a fibre D resists, is not DC, but a shorter one D c; and the energy of the whole resistances must be less than by the second statement. Till we know the proportion between the dilatability and compressibility of the parts, and the relation between the dilatations of the fibres and the resistances which they exert in this state of dilatation, we cannot positively say where the point c is situated, nor what is the sum of the actual resistances, or the point where their action may be supposed concentrated. The firmer woods, such as oak and chesnut, may be supposed to be but slightly compressible; we know that willow and other soft woods are very compressible. These last must therefore be weaker: for it is evident, that the fibres which are in a state of compression do not resist the fracture. It is well known, that a beam of willow may be cut through from C to g without weakening it in the least, if the cut be filled up by a wedge of hard wood stuck in.

We can only say, that very sound oak and red fir have the centre of effort so situated, that the absolute strength is to the relative strength in a proportion not less than that of three and a half times the length of the beam to its depth. A square inch of sound oak will carry about 8000 pounds. If this bar be firmly fixed in a wall, and project 12 inches, and be loaded at the extremity with 200 pounds, it will be broken. It will just bear 190, its relative strength being $\frac{1}{42}$ of its absolute strength; and this is the case only with the finest pieces, so placed that their annual plates or layers are in a vertical position. A larger log is not so strong transversely, because its plates lie in various directions round the heart.

18 Practical Inferences.

These observations are enough to give us a distinct notion of the vast diminution of the strength of timber when the strain is across it; and we see the justice of the maxim which we inculcated, that the carpenter, in framing roofs, should avoid as much as possible the exposing his timbers to transverse strains. But this cannot be avoided in all cases. Nay, the ultimate strain arising from the very nature of a roof, is transverse. The rafters must carry their own weight, and this tends to break them across: an oak beam a foot deep will not carry its own weight if it project more than 60 feet. Besides this, the rafters must carry the lead, tyling, or slates. We must therefore consider this tranverse strain a little more particularly, so as to know what strain will be laid on any part by an unavoidable load, laid on either at that part or at any other.

19 Effect when beams are supported at the ends and loaded in the middle, &c.

We have hitherto supposed, that the beam had one of its ends fixed in a wall, and that it was loaded at the other end. This is not an usual arrangement, and was taken merely as affording a simple application of the mechanical principles. It is much more usual to have the beam supported at the ends, and loaded in the middle. Let the beam FEGH (fig. 2.) rest on the props E and G, and be loaded at its middle point C with a weight W. It is required to determine the strain at the section CD? It is plain that the beam will receive the same support, and suffer the same strain, if, instead

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instead of the blocks E and G, we substitute the ropes E f e, G h g, going over the pulleys f and g, and loaded with proper weights e and g. The weight e is equal to the support given by the block E; and g is equal to the support given by G. The sum of e and g is equal to W; and on whatever point W is hung, the weights e and g are to W in the proportion of DG and DE to GE. Now, in this state of things, it appears that the strain on the section CD arises immediately from the upward action of the ropes F f and H h, or the upward pressions of the blocks E and G; and that the office of the weight W is to oblige the beam to oppose this strain. Things are in the same state in respect of strain as if a block were substituted at D for the weight W, and the weights e and g were hung on at E and G; only the directions will be opposite. The beam tends to break in the section CD, because the ropes pull it upwards at E and G, while a weight W holds it down at C. It tends to open at D, and C becomes the centre of fracture. The strain therefore is the same as if the half ED were fixed in the wall, and a weight equal to g, that is, to the half of W, were hung on at G.

Hence we conclude, that a beam supported at both ends, but not fixed there, and loaded in the middle, will carry twice as much weight as it can carry at its extremity, when the other extremity is fast in a wall.

The strain occasioned at any point L by a weight W, hung on at any other point D, is $= W \times \frac{DE}{EG} \times LG$. For EG is to ED as W to the pressure occasioned at G. This would be balanced by some weight g acting over the pulley h; and this tends to break the beam at L, by acting on the lever GL. The pressure at G is $W.\frac{DE}{EG}$, and therefore the strain at L is $W.\frac{DE}{EG}.LG$.

In like manner, the strain occasioned at the point D by the weight W hung on there, is $W\frac{DE}{EG} \times DG$; which is therefore equal to $\frac{1}{2}$ W, when D is the middle point.

Hence we see, that the general strain on the beam arising from one weight, is proportionable to the rectangle of the parts of the beam, (for $\frac{W.DE.DG}{EG}$ is as DE.DG), and is greatest when the load is laid on the middle of the beam.

We also see, that the strain at L, by a load at D, is equal to the strain at D by the same load at L. And the strain at L, from a load at D, is to the strain by the same load at L as DE to LE. These are all very obvious corollaries; and they sufficiently inform us concerning the strains which are produced on any part of the timber by a load laid on any other part.

If we now suppose the beam to be fixed at the two ends, that is, firmly framed, or held down by blocks at I and K, placed beyond E and G, or framed into posts, it will carry twice as much as when its ends were free. For suppose it sawn through at CD; the weight W hung on there will be just sufficient to break it at E and G. Now restore the connection of the section CD, it will require another weight W to break it there at the same time.

Therefore, when a rafter, or any piece of timber, is firmly connected with three fixed points, G, E, I, it will bear a greater load between any two of them than if its connection with the remote point were removed; and if it be fastened in four points, G, E, I, K, it will be twice as strong in the middle part as without the two remote connections.

One is apt to expect from this that the joist of a floor will be much strengthened by being firmly built in the wall. It is a little strengthened; but the hold which can thus be given it is much too short to be of any sensible service, and it tends greatly to shatter the wall, because, when it is bent down by a load, it forces up the wall with a momentum of a long lever. Judicious builders therefore take care not to bind the joists tight in the wall. But when the joists of adjoining rooms lie in the same direction, it is a great advantage to make them of one piece. They are then twice as strong as when made in two lengths.

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It is easy to deduce from these premises the strain on any point which arises from the weight of the beam itself, or from any load which is uniformly diffused over the whole or any part. We may always consider the whole of the weight which is thus uniformly diffused over any part as united in the middle point of that part; and if the load is not uniformly diffused, we may still suppose it united at its centre of gravity. Thus, to know the strain at D arising from the weight of the whole beam, we may suppose the whole weight accumulated in its middle point D. Also the strain at L, arising from the weight of the part ED, is the same as if this weight were accumulated in the middle point d of ED; and it is the same as if half the weight of ED were hung on at D. For the real strain at L is the upward pressure at G, acting by the lever GL. Now call the weight of the part DE e; this upward pressure will be $\frac{e \times dE}{EG}$, or $\frac{\frac{1}{2}e \times DE}{EG}$

Therefore the strain on the middle of a beam, arising from its own weight, or from any uniform load, is the weight of the beam or its load $\times \frac{ED}{EG} \times DG$; that is, half the weight of the beam or load multiplied or acting by the lever DG; for $\frac{ED}{EG}$ is $\frac{1}{2}$.

Also the strain at L, arising from the weight of the beam, or the uniform load, is $\frac{1}{2}$ the weight of the beam or load acting by the lever LG. It is therefore proportional to LG, and is greatest of all at D. Therefore a beam of uniform strength throughout, uniformly loaded, will break in the middle.

21 Relation between the weight or strains and the relative strength.

It is of importance to know the relation between the strains arising from the weights of the beams, or from any uniformly diffused load, and the relative strength. We have already seen, that the relative strength is $\int \frac{cdb\,d}{m\,l}$, where m is a number to be discovered by experiment for every different species of materials. Leaving out every circumstance but what depends on the dimensions of the beam, viz. d, b, and l, we

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we see that the relative strength is in the proportion of $\frac{d^2b}{l}$, that is, as the breadth and the square of the depth directly and the length inversely.

Now, to consider first the strain arising from the weight of the beam itself, it is evident that this weight increases in the same proportion with the depth, the breadth, and the length of the beam. Therefore its power of resisting this strain must be as its depth directly, and the square of its length inversely. To consider this in a more popular manner, it is plain that the increase of breadth makes no change in the power of resisting the actual strain, because the load and the absolute strength increase in the same proportion with the breadth. But, by increasing the depth, we increase the resisting section in the same proportion, and therefore the number of resisting fibres and the absolute strength: but we also increase the weight in the same proportion. This makes a compensation, and the relative strength is yet the same. But, by increasing the depth, we have not only increased the absolute strength, but also its mechanical energy: For the resistance to fracture is the same as if the full strength of each fibre was exerted at the point which we called the centre of effort; and we showed, that the distance of this from the underside of the beam was a certain portion (a half, a third, a fourth, &c.) of the whole depth of the beam. This distance is the arm of the lever by which the cohesion of the wood may be supposed to act. Therefore this arm of the lever, and consequently the energy of the resistance, increases in the proportion of the depth of the beam, and this remains uncompensated by any increase of the strain. On the whole, therefore, the power of the beam to sustain its own weight increases in the proportion of its depth. But, on the other hand, the power of withstanding a given strain applied at its extremity, or to any aliquot part of its length, is diminished as the length increases, or is inversely as the length; and the strain arising from the weight of the beam also increases as the length. Therefore the power of resisting the strain actually exerted on it by the weight of the beam is inversely as the square of the length. On the whole, therefore, the power of a beam to carry its own weight, varies in the proportion of its depth directly and the square of its length inversely.

As this strain is frequently a considerable part of the whole, it is proper to consider it apart, and then to reckon only on what remains for the support of any extraneous load.

22 Power of a beam to carry a load uniformly diffused over its length.

In the next place, the power of a beam to carry any load which is uniformly diffused over its length, must be inversely as the square of the length: for the power of withstanding *any* strain applied to an aliquot part of the length (which is the case here, because the load may be conceived as accumulated at its centre of gravity, the middle point of the beam) is inversely as the length; and the *actual* strain is as the length, and therefore its momentum is as the square of the length. Therefore the power of a beam to carry a weight uniformly diffused over it, is inversely as the square of the length. *N. B.* It is here understood, that the uniform load is of some determined quantity for every foot of the length, so that a beam of double length carries a double load.

We have hitherto supposed that the forces which tend to break a beam transversely, are acting in a direction perpendicular to the beam. This is always the case in level floors loaded in any manner; but in roofs, the action of the load tending to break the rafters is oblique, because gravity always acts in vertical lines. It may also frequently happen, that a beam is strained by a force acting obliquely. This modification of the strain is easily discussed. Suppose that the external force, which is measured by the weight W in fig. 1. acts in the direction A *w'* instead of AW. Draw C *á* perpendicular to A *w*. Then the momentum of this external force is not to be measured by W × AC, but by W × *á* C. The strain therefore by which the fibres in the section of fracture DC are torn asunder, is diminished in the proportion of CA to C *á*, that is, in the proportion of radius to the sine of the angle C A *á*, which the beam makes with the direction of the external force.

23 Effect when the action of the load is obliqu.

To apply this to our purpose in the most familiar manner, let AB (fig. 3.) be an oblique rafter of a building, loaded with a weight W suspended to any point C, and thereby occasioning a strain in some part D. We have already seen, that the immediate cause of the strain on D is the reaction of the support which is given to the point B. The rafter may at present be considered as a lever, supported at A, and pulled down by the line CW. This occasions a pressure on B, and the support acts in the opposite direction to the action of the lever, that is, in the direction B *b*, perpendicular to BA. This tends to break the beam in every part. The pressure exerted at B is $\frac{W \times AE}{AB}$, AE being a horizontal line. Therefore the strain at D will be $\frac{W \times AE}{AB} \times BD$. Had the beam been lying horizontally, the strain at D, from the weight W suspended at C, would have been $\frac{W.AC}{AB} \times BD$. It is therefore diminished in the proportion of AC to AE, that is, in the proportion of radius to the cosine of the elevation, or in the proportion of the secant of elevation to the radius.

Fig. 3.

It is evident, that this law of diminution of the strain is the same whether the strain arises from a load on any part of the rafter, or from the weight of the rafter itself, or from any load uniformly diffused over its length, provided only that these loads act in vertical lines.

24 Strength of roofs having different elevations compared.

We can now compare the strength of roofs which have different elevations. Supposing the width of the building to be given, and that the weight of a square yard of covering is also given. Then, because the load on the rafter will increase in the same proportion with its length, the load on the slant-side BA of the roof will be to the load of a similar covering on the half AF of the flat roof, of the same width, as AB to AF. But the transverse action of any load on AB, by which it tends to break it is to that of the same load on AF as AF to AB. The transverse strain therefore is the same on both, the increase of real load on AB being compensated by the obliquity of its action. But the strengths of beams to resist equal strains, applied to similar points, or uniformly diffused over them, are inversely as their lengths, because the momentum or energy of the strain is proportional to the length. Therefore

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fore the power of AB to withstand the strain to which it is really exposed, is to the power of AF to resist its strain as AF to AB. If, therefore, a rafter AG of a certain scantling is just able to carry the roofing laid on it, a rafter AB of the same scantling, but more elevated, will be too weak in the proportion of AG to AB. Therefore steeper roofs require stouter rafters, in order that they may be equally able to carry a roofing of equal weight per square yard. To be equally strong, they must be made broader, or placed nearer to each other, in the proportion of their greater length, or they must be made deeper in the subduplicate proportion of their length. The following easy construction will enable the artist not familiar with computation to proportion the depth of the rafter to the slope of the roof.

Fig. 4.

Let the horizontal line *a f* (fig. 4.) be the proper depth of a beam whose length is half the width of the building; that is, such as would make it fit for carrying the intending tiling laid on a flat roof. Draw the vertical line *f b*, and the line *a b* having the elevation of the rafter; make *a g* equal to *a f*, and describe the semicircle *b d g*; draw *a d* perpendicular to *a b*, *a d* is the required depth. The demonstration is evident.

We have now treated in sufficient detail, what relates to the chief strain on the component parts of a roof, namely, what tends to break them transversely; and we have enlarged more on the subject than what the present occasion indispensably required, because the propositions which we have demonstrated are equally applicable to all framings of carpentry, and are even of greater moment in many cases, particularly in the construction of machines. These consist of levers in various forms, which are strained transversely; and similar strains frequently occur in many of the supporting and connecting parts. We shall give in the article TIMBER, an account of the experiments which have been made by different naturalists, in order to ascertain the absolute strength of some of the materials which are most generally framed together in buildings and engines. The house-carpenter will draw from them absolute numbers, which he can apply to his particular purposes by means of the propositions which we have now established.

25 Effect of other strains, pressures, or thrusts.

We proceed, in the next place, to consider the other strains to which the parts of roofs are exposed, in consequence of the support which they mutually give each other, and the pressures (or *thrusts* as they are called in the language of the house-carpenter) which they exert on each other, and on the walls or piers of the building.

Fig. 5.

Let a beam or piece of timber AB (fig. 5.) be suspended by two lines AC, BD; or let it be supported by two props AE, BF, which are perfectly moveable round their remote extremities E, F, or let it rest on the two polished planes KAH, LBM. Moreover, let G be the centre of gravity of the beam, and let GN be a line through the centre of gravity perpendicular to the horizon. The beam will not be in equilibrio unless the vertical line GN either passes through P, the point in which the directions of the two lines AC, BD, or the directions of the two props EA, FD, or the perpendiculars to the two planes KAH, LBM intersect each other, or is parallel to these directions. For the supports given by the lines or props are unquestionably exerted in the direction of their lengths; and it is as well known in mechanics that the supports given by planes are exerted in a direction perpendicular to those planes in the points of contact; and we know that the weight of the beam acts in the same manner as if it were all accumulated in its centre of gravity G, and that it acts in the direction GN perpendicular to the horizon. Moreover, when a body is in equilibrio between three forces, they are acting in one plane, and their directions are either parallel or they pass through one point.

The support given to the beam is therefore the same as if it were suspended by two lines which are attached to the single point P. We may also infer, that the points of suspension C, D, the points of support, E, F, the points of contact A, B, and the centre of gravity G, are all in one vertical plane.

When this position of the beam is disturbed by any external force, there must either be a motion of the points A and B round the centres of suspension C and D, or of the props round these points of support E and F, or a sliding of the ends of the beam along the polished planes GH and IK; and in consequence of these motions the centre of gravity G will go out of its place, and the vertical line GN will no longer pass through the point where the directions of the supports intersect each other. If the centre of gravity rises by this motion, the body will have a tendency to recover its former position, and it will require force to keep it away from it. In this case the equilibrium may be said to be *stable*, or the body to have *stability*. But if the centre of gravity descends when the body is moved from the position of equilibrium, it will tend to move still farther; and so far will it be from recovering its former position, that it will now fall. This equilibrium may be called a *tottering equilibrium*. These accidents depend on the situations of the points A, B, C, D, E, F; and they may be determined by considering the subject geometrically. It does not much interest us at present; it is rarely that the equilibrium of suspension is tottering, or that of props is stable. It is evident, that if the beam were suspended by lines from the point P, it would have stability, for it would swing like a pendulum round P, and therefore would always tend towards the position of equilibrium. The intersection of the lines of support would still be at P, and the vertical line drawn through the centre of gravity, when in any other situation, would be on that side of P towards which this centre has been moved. Therefore, by the rules of pendulous bodies, it tends to come back. This would be more remarkably the case if the points of suspension C and D be on the same side of the point P with the points of attachment A and B, for in this case the new point of intersection of the lines of support would shift to the opposite side, and be still farther from the vertical line through the new position of the centre of gravity. But if the points of suspension and of attachment are on opposite sides of P, the new point of intersection may shift to the same side with the centre of gravity, and lie beyond the vertical line; in this case the equilibrium is tottering. It is easy to perceive, too, that if the equilibrium of suspension from the points C and D be stable, the equilibrium on the props AE and BF must be tottering. It is not necessary for our present purpose to engage more particularly in this discussion.

It is plain that, with respect to the mere momentary equilibrium, there is no difference in the support by threads,

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threads, or props, or planes, and we may substitute the one for the other. We shall find this substitution extremely useful, because we easily conceive distinct notions of the support of a body by strings.

Observe farther, that if the whole figure be inverted, and strings be substituted for props, and props for strings, the equilibrium will still obtain: for by comparing fig. 5. with fig. 6. we see that the vertical line through the centre of gravity will pass through the intersection of the two strings or props; and this is all that is necessary for the equilibrium; only it must be observed in the substitution of props for threads, and of threads for props, that if it be done without inverting the whole figure, a stable equilibrium becomes a tottering one, and *vice versa*.

Fig. 6.

26 Examples.

This is a most useful proposition, especially to the unlettered artisan, and enables him to make a practical use of problems which the greatest mechanical geniuses have found no easy task to solve. An instance will show the extent and utility of it. Suppose it were required to make a mansard or kirb roof whose width is AB (fig. 7.), and consisting of the four equal rafters AC, CD, DE, EB. There can be no doubt but that its best form is that which will put all the parts in equilibrio, so that no ties or stays may be necessary for opposing the unbalanced thrust of any part of it. Make a chain *a c d e b* (fig. 8.) of four equal pieces, loosely connected by pin-joints, round which the parts are perfectly moveable. Suspend this from two pins *a*, *b*, fixed in a horizontal line This chain or festoon will arrange itself in such a form that its parts are in equilibrio. Then we know that if the figure be inverted, it will compose the frame or truss of a kirb roof *a γ δ ε b*, which is also in equilibro, the thrusts of the pieces balancing each other in the same manner that the mutual pulls of the hanging festoon *a c d e b* did. If the proportion of the height *d f* to the width *a b* is not such as pleases, let the pins *a*, *b* be placed nearer or more distant, till a proportion between the width and height is obtained which pleases, and then make the figure ACDEB, fig. 7. similar to it. It is evident that this proposition will apply in the same manner to the determination of the form of an arch of a bridge; but this is not a proper place for a farther discussion.

Fig. 7.

Fig. 8.

We are now able to compute all the thrusts and other pressures which are exerted by the parts of a roof on each other and on the walls. Let AB (fig. 9.) be a beam standing anyhow obliquely, and G its centre of gravity. Let us suppose that the ends of it are supported in any directions AC, BD, by strings, props, or planes. Let these directions meet in the point P of the vertical line PG passing through its centre of gravity. Through G draw lines G *a*, G *b* parallel to PB, PA. Then

Fig. 9.

$$\left.\begin{array}{l}\text{The weight of the beam}\\ \text{The pressure or thrust at A}\\ \text{The pressure at B}\end{array}\right\}\text{are proportional to}\left\{\begin{array}{l}PG\\ P\,a\\ P\,b.\end{array}\right.$$

For when a body is in equilibrio between three forces, these forces are proportional to the sides of a triangle which have their directions.

In like manner, if A *g* be drawn parallel to P *b*, we shall have

$$\left.\begin{array}{l}\text{Weight of the beam}\\ \text{Thrust on A}\\ \text{Thrust on B}\end{array}\right\}\text{proportional to}\left\{\begin{array}{l}P\,g\\ PA\\ B\,g\end{array}\right.$$

Or, drawing B γ parallel to P *a*

$$\left.\begin{array}{l}\text{Weight of beam}\\ \text{Thrust at A}\\ \text{Thrust at B}\end{array}\right\}\text{are proportional to}\left\{\begin{array}{l}P\gamma\\ B\gamma\\ PB\end{array}\right.$$

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27 The proper form of a roof is that which puts the whole in equilibrio.

It cannot be disputed that, if strength alone be considered, the proper form of a roof is that which puts the whole in equilibrio, so that it would remain in that shape although all the joints were perfectly loose or flexible. If it has any other shape, additional ties or braces are necessary for preserving it, and the parts are unnecessarily strained. When this equilibrium is obtained, the rafters which compose the roof are all acting on each other in the direction of their lengths; and by this action, combined with their weights, they sustain no strain but that of compression, the strain of all others that they are the most able to resist. We may consider them as so many inflexible lines having their weights accumulated in their centres of gravity. But it will allow an easier investigation of the subject, if we suppose the weights to be at the joints, equal to the real vertical pressures which are exerted on these points. These are very easily computed; for it is plain, that the weight of the beam AB (fig. 9.) is to the part of this weight that is supported at B as AB to AG. Therefore, if W represent the weight of the beam, the vertical pressure at B will be $W\times\frac{AG}{AB}$, and the vertical pressure at A will be $W\times\frac{BG}{AB}$. In like manner, the prop BF being considered as another beam, and *f* as its centre of gravity and *w* as its weight, a part of this weight, equal to $w\times\frac{fF}{BF}$, is supported at B, and the whole vertical pressure at B is $W\times\frac{AG}{AB}+w\times\frac{fF}{BF}$. And thus we greatly simplify the consideration of the mutual thrusts of roof frames. We need hardly observe, that although these pressures by which the parts of a frame support each other in opposition to the vertical action of gravity, are always exerted in the direction of the pieces, they may be resolved into pressures acting in any other direction which may engage our attention.

All that we propose to deliver on this subject at present may be included in the following proposition.

Let ABCDE (fig. 10.) be an assemblage of rafters in a vertical plane, resting on two fixed points A and E in a horizontal line, and perfectly moveable round all the joints A, B, C, D, E; and let it be supposed to be in equilibrio, and let us investigate what adjustment of the different circumstances of weight and inclination of its different parts is necessary for producing this equilibrium.

Fig. 10.

Let F, G, H, I, be the centres of gravity of the different rafters, and let these letters express the weights of each. Then (by what has been said above) the weight which presses B directly downwards is $F\times\frac{AF}{AB}+G\times\frac{CG}{BC}$. The weight on C is in like manner $G+\frac{BG}{BC}+H\times\frac{DH}{CD}$, and that on D is $H\times\frac{CH}{CD}+I\times\frac{EI}{DE}$.

Let A *b c d* E be the figure ABCDE inverted, in the manner already described. It may be conceived as a thread fastened at A and E, and loaded at *b*, *c*, and *d*

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d with the weights which are really pressing on B, C, and D. It will arrange itself into such a form that all will be in equilibrio. We may discover this form by means of this single consideration, that any part $b\,c$ of the thread is equally stretched throughout in the direction of its length. Let us therefore investigate the proportion between the weight β, which we suppose to be pulling the point b in the vertical direction $b\,\beta$, to the weight δ, which is pulling down the point d in a similar manner. It is evident, that since AE is a horizontal line, and the figures A $b\,c\,d$ E and ABCDE equal and similar, the lines B b, C c, D d, are vertical. Take $b\,f$ to represent the weight hanging at b. By stretching the threads b A and $b\,c$ it is set in opposition to the contractile powers of the threads, acting in the directions b A and $b\,c$, and it is in immediate equilibrio with the equivalent of these two contractile forces. Therefore make $b\,g$ equal to $b\,f$, and make it the diagonal of a parallelogram $h\,b\,i\,g$. It is evident that $b\,h$, $b\,i$, are the forces exerted by the threads b A, $b\,c$. Then, seeing that the thread $b\,c$ is equally stretched in both directions, make $c\,k$ equal to $b\,i$; $c\,k$ is the contractile force which is excited at c by the weight which is hanging there. Draw $k\,l$ parallel to $c\,d$, and $l\,m$ parallel to $b\,c$. The force $l\,c$ is the equivalent of the contractile forces $c\,k$, $c\,m$, and is therefore equal and opposite to the force of gravity acting at C. In like manner, make $d\,n = c\,m$, and complete the parallelogram $n\,d\,p\,o$, having the vertical line $o\,d$ for its diagonal. Then $d\,n$ and $d\,p$ are the contractile forces excited at d, and the weight hanging there must be equal to $o\,d$.

Therefore, the load at b is to the load at d as $b\,g$ to $d\,o$. But we have seen that the compressing forces at B, C, D may be substituted for the extending forces at b, c, d. Therefore the weights at B, C, D which produce the compressions, are equal to the weights at b, c, d, which produce the extensions. Therefore $b\,g : do = \mathrm{F} \times \frac{\mathrm{AF}}{\mathrm{AB}} + \mathrm{G} \times \frac{\mathrm{CG}}{\mathrm{BC}} : \mathrm{H} \times \frac{\mathrm{CH}}{\mathrm{CD}} + \mathrm{I} \times \frac{\mathrm{EI}}{\mathrm{DE}}$.

Let us enquire what relation there is between this proportion of the loads upon the joints at B and D, and the angles which the rafters make at these joints with each other, and with the horizon or the plumb lines. Produce AB till it cut the vertical C c in Q; draw BR parrallel to CD, and BS parallel to DE. The similarity of the figures ABCDE and A $b\,c\,d$ E, and the similarity of their position with respect to the horizontal and plumb lines, show, without any further demonstration, that the triangles QCB and $g\,b\,i$ are similar, and that QB : BC $= g\,i : i\,b, = h\,b : i\,b$. Therefore QB is to BC as the contractile force exerted by the thread A b to that exerted by $b\,c$; and therefore QB is to BC as the compression of BA to the compression on BC (A). Then, because $b\,i$ is equal to $c\,k$, and the triangles CBR and $c\,k\,l$ are similar, CB : BR $= c\,k : k\,l, = c\,k : c\,m$, and CB is to BR as the compression on CB to the compression on CD. And, in like manner, because $c\,m = d\,n$, we have BR to BS as the compression on DC to the compression on DE. Also BR : RS $= n\,d : d\,o$, that is, as the compression on DC to the load on D. Finally combining all these ratios

QC : CB $= g\,b : b\,i, = g\,b : k\,c$
CB : BR $= k\,c : k\,l, = k\,c : d\,n$
BR : BS $= n\,d : n\,o = d\,n : n\,o$
BS : RS $= n\,o : d\,o = n\,o : d\,o$, we have finally
QC : RS $= g\,b : o\,d =$ Load at B : Load at D.

Now

QC : BC $= f$, QBC : f, BQC, $= f$, ABC : f, AB b
BC : BR $= f$, BRC : f BCR, $= f$ CD d : f, b BC
BR : RS $= f$, BSR : f, RBS $= f$, d DE : f, CDE

Therefore

QC : RS $= f$, ABC. f, CD d. f, d DE : f, CDE. f, ABb. f, b BC.

Or

$$\mathrm{QC} : \mathrm{RS} = \frac{f,\ \mathrm{ABC}}{f,\ \mathrm{AB}\,b.\ f\ \mathrm{CB}\,b} : \frac{f,\ \mathrm{CDE}}{f,\ d\,\mathrm{DC}.\ f,\ d\,\mathrm{DE}}.$$

That is, the loads on the different joints are as the sines of the angles at these joints directly, and as the products of the sines of the angles which the rafters make with the plumb-lines inversely.

Or, the loads are as the sines of the angles of the joints directly, and as the products of the cosines of the elevations of the rafters jointly.

Or, the loads at the joints are as the sines of the angles at the joints, and as the products of the secants of elevation of the rafters jointly: for the secants of angles are inversely as the cosines.

Draw the horizontal line BT. It is evident, that if this be considered as the radius of a circle, the lines BQ, BC, BR, BS are the secants of the angles which these lines make with the horizon. And they are also as the thrusts of those rafters to which they are parallel. Therefore, the thrust which any rafter makes in its own direction is as the secant of its elevation.

The horizontal thrust is the same at all the angles. For $i\,\iota = k\,\varkappa, = m\,\mu, = n\,\nu, = p\,\pi$. Therefore both walls are equally pressed out by the weight of the roof. We can find its quantity by compelling it with the load on one of the joints:

Thus, QC : CB $= f$, ABC : f, AB b
BC : BT $=$ Rad. : f, BCT, $=$ Rad. : f, CB b

Therefore, QC : BT $=$ Rad. $\times f$, ABC : f, b BA $\times f$, b BC

28 The length of the beams depends on the weights at the angles.

It deserves remark, that the lengths of the beams do not affect either the proportion of the load at the different joints, nor the position of the rafters. This depends merely on the weights at the angles. If a change of length affects the weight, this indeed affects the form also: and this is generally the case. For

(A) This proportion might have been shown directly without any use of the inverted figure or consideration of contractile forces; but this substitution gives distinct notions of the mode of acting even to persons not much conversant in such disquisitions; and we wish to make it familiar to the mind, because it gives an easy solution of the most complicated problems, and furnishes the practical carpenter, who has little science, with solutions of the most difficult cases by experiment. A festoon, as we called it, may easily be made; and we are certain, that the forms into which it will arrange itself are models of perfect frames.

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For it seldom happens, indeed it never should happen, that the weight on rafters of longer bearing are not greater. The covering alone increases nearly in the proportion of the length of the rafter.

If the proportion of the weights at B, C, and D are given, as also the position of any two of the lines, the position of all the rest is determined.

If the horizontal distances between the angles are all equal, the forces on the different angles are proportional to the verticals drawn on the lines through these angles from the adjoining angle, and the thrusts from the adjoining angles are as the lines which connect them.

If the rafters themselves are of equal lengths, the weights at the different angles are as these verticals and as the secants of the elevation of the rafters jointly.

29 Practical Inferences.

This proposition is very fruitful in its practical consequences. It is easy to perceive that it contains the whole theory of the construction of arches; for each stone of an arch may be considered as one of the rafters of this piece of carpentry, since all is kept up by its mere equilibrium. We may have an opportunity in some future article of exhibiting some very elegant and simple solutions of the most difficult cases of this important problem; and we now proceed to make use of the knowledge we have acquired for the construction of roofs.

30 To determine the best form of a kirb-roof. Fig. 11.

We mentioned by the bye a problem which is not unfrequent in practice, to determine the best form of a kirb-roof. Mr Couplet of the Royal Academy of Paris has given a solution of it in an elaborate memoir in 1726, occupying several lemmas and theorems.

Let AE (fig. 11.) be the width, and CF the height; it is required to construct a roof ABCDE whose rafters AB, BC, CD, DE, are all equal, and which shall be in equilibrio.

Draw CE, and bisect it perpendicularly in H by the line DHG, cutting the horizontal line AE in G. About the centre G, with the distance GE, describe the circle EDC. It must pass through C, because CH is equal to HE and the angles at H are equal. Draw HK parallel to FE, cutting the circumference in K. Draw CK, cutting GH in D. Join CD, ED; these lines are the rafters of half of the roof required.

We prove this by showing that the loads in the angles C and D are equal. For this is the proportion which results from the equality of the rafters, and the extent of surface of the uniform roofing which they are supposed to support. Therefore produce ED till it meet the vertical FC in N; and having made the side CBA similar to CDE, complete the parallelogram BCDP, and draw DB, which will bisect CP in R, as the horizontal line KH bisects CF in Q. Draw KF, which is evidently parallel to DP. Make CS perpendicular to CF, and equal to FG; and about S, with the radius SF, describe the circle FKW. It must pass through K, because SF is equal to CG, and CQ = QF. Draw WK, WS, and produce BC, cutting ND in O.

The angle WKF at the circumference is one-half of the angle WSF at the centre, and is therefore equal to WSC, or CGF. It is therefore double of the angle CEF or ECS. But ECS is equal to ECD and DCS, and ECD is one-half of NDC, and DCS is one-half of DCO, or CDP. Therefore the angle WKF is equal to NDP, and WK is parallel to ND, and CF is to CW as CP to CN; and CN is equal to CP. But it has been shown above, that CN and CP are as the loads upon D and C. These are therefore equal, and the frame ABCDE is in equilibrio.

A comparison of this solution with that of Mr Couplet will show its great advantage in respect of simplicity and perspicuity. And the intelligent reader can easily adapt the construction to any proportion between the rafters AB and BC, which other circumstances, such as garret-rooms, &c. may render convenient. The construction must be such that NC may be to CP as CD to $\frac{CD+DE}{2}$. Whatever proportion of AB to BC is assumed, the point D′ will be found in the circumference of a semicircle H′ D′ h', whose centre is in the line CE, and having AB : BC = CH′ : HE′, = $c\ h'$: h' E.—The rest of the construction is simple.

In buildings which are roofed with slate, tyle, or shingles, the circumstance which is most likely to limit the construction is the slope of the upper rafters CB, CD. This must be sufficient to prevent the penetration of rain, and the stripping by the winds. The only circumstance left in our choice in this case is the proportion of the rafters AB and BC. Nothing is easier than making NC to CP in any desired proportion when the angle BCD is given.

31 The truss for a roof should always be in equilibrio.

We need not repeat that it is always a desireable thing to form a truss for a roof in such a manner that it shall be in equilibrio. When this is done, the whole force of the struts and braces which are added to it is employed in preserving this form, and no part is expended in unnecessary strains. For we must now observe, that the equilibrium of which we have been treating is always of that kind which we call the tottering, and the roof requires stays, braces, or hanging timbers, to give it stiffness, or keep it in shape. We have also said enough to enable any reader acquainted with the most elementary geometry and mechanics, to compute the transverse strains and the thrusts to which the component parts of all roofs are exposed.

32 General maxims by which all roofs must be constructed.

It only remains now to show the general maxims by which all roofs must be constructed, and the circumstances which determine their excellence. In doing this we shall be exceedingly brief, and almost content ourselves with exhibiting the principal forms, of which the endless variety of roofs are only slight modifications.—We shall not trouble the reader with any account of such roofs as receive part of their support from the interior walls, but confine ourselves to the more difficult problem of throwing a roof over a wide building, without any intermediate support; because when such roofs are constructed in the best manner, that is, deriving the greatest possible strength from the materials employed, the best construction of the others is necessarily included. For all such roofs as rest on the middle walls are roofs of smaller bearing. The only exception deserving notice is the roofs of churches, which have aisles separated from the nave by columns. The roof must rise on these. But if it is of an arched form internally, the horizontal thrusts must be nicely balanced, that they may not push the columns aside.

33 Simplest notion of a roof. Fig. 12.

The simplest notion of a roof-frame is, that it consists of two rafters AB and BC (fig. 12.), meeting in the ridge.

Even

Roof.

Even this simple form is susceptible of better and worse. We have already seen, that when the weight of a square yard of covering is given, a steeper roof requires stronger rafters, and that when the scantling of the timbers is also given, the relative strength of a rafter is inversely as its length. But there is now another circumstance to be taken into the account, viz. the support which one rafter leg gives to the other. The best form of a rafter will therefore be that in which the relative strength of the legs, and their mutual support, give the greatest product. Mr Muller, in his *Military Engineer*, gives a determination of the best pitch of a roof, which has considerable ingenuity, and has been copied into many books of military education both in this island and on the continent. Describe on the width AC, fig. 13. the semicircle AFC, and bisect it by the radius FD. Produce the rafter AB to the circumference in E, join EC, and draw the perpendicular EG.—Now AB : AD=AC : AE, and $AE=\frac{AD \times AC}{AB}$, and AE is inversely as AB, and may therefore represent its strength in relation to the weight actually lying on it. Also the support which CB gives to AB is as CE, because CE is perpendicular to AB. Therefore the form which renders $AE \times EC$ a maximum seems to be that which has the greatest strength. But AC : AE=EC : EG, and $EG=\frac{AE \cdot EC}{AC}$, and is therefore proportional to AE.EC. Now EG is a maximum when B is in F, and a square pitch is in this respect the strongest. But it is very doubtful whether this construction is deduced from just principles. There is another strain to which the leg AB is exposed, which is not taken into the account. This arises from the curvature which it unavoidably acquires by the transverse pressure of its load. In this state it is pressed in its own direction by the abatement and load of the other leg. The relation between this strain and the resistance of the piece is not very distinctly known. Euler has given a dissertation on this subject (which is of great importance, because it affects posts and pillars of all kinds; and it is very well known that a post of ten feet long, and six inches square will bear with great safety a weight which would crush a post of the same scantling and 20 feet long in a minute); but his determination has not been acquiesced in by the first mathematicians. Now it is in relation to these two strains that the strength of the rafter should be adjusted. The firmness of the support given by the other leg is of no consequence, if its own strength is inferior to the strain. The force which tends to crush the leg AB, by compressing it in its curved state, is to its weight as AB to BD, as is easily seen by the composition of forces; and its incurvation by this force has a relation to it, which is of intricate determination. It is contained in the properties demonstrated by Bernoulli of the elastic curve. This determination also includes the relation between the curvature and the length of the piece. But the whole of this seemingly simple problem is of much more difficult investigation than Mr Muller was aware of; and his rules for the pitch of a roof, and for the sally of a dock gate, which depends on the same principles, are of no value. He is, however, the first author who attempted to solve either of these problems on mechanical principles susceptible of precise reasoning. Belidor's solutions, in his *Architecture Hydraulique*, are below notice.

34 Best form of rafters.

Fig. 13.

Reasons of economy have made carpenters prefer a low pitch; and although this does diminish the support given by the opposite leg faster than it increases the relative strength of the other, this is not of material consequence, because the strength remaining in the opposite leg is still very great; for the supporting leg is acting against compression, in which case it is vastly stronger than the supported leg acting against a transverse strain.

35 Thrust on the walls.

But a roof of this simplicity will not do in most cases. There is no notice taken in its construction of the thrust which it exerts on the walls. Now this is the strain which is the most hazardous of all. Our ordinary walls, instead of being able to resist any considerable strain pressing them outwards, require, in general, some ties to keep them on foot. When a person thinks of the thinness and height of the walls of even a strong house, he will be surprised that they are not blown down by any strong puff of wind. A wall of three feet thick, and 60 feet high, could not withstand a wind blowing at the rate of 30 feet per second (in which case it acts with a force considerably exceeding two pounds on every square foot), if it were not stiffened by cross walls, joists, and roof, which all help to tie the different parts of the building together.

36 How avoided.

A carpenter is therefore exceeding careful to avoid every horizontal thrust, or to oppose them by other forces. And this introduces another essential part into the construction of a roof, namely the *tie* or *beam* AC, (fig. 14.), laid from wall to wall, binding the feet A and C of the rafters together. This is the sole office of the beam; and it should be considered in no other light than as a string to prevent the roof from pushing out the walls. It is indeed used for carrying the ceiling of the apartments under it; and it is even made to support a flooring. But, considered as making part of a roof, it is merely a string; and the strain which it withstands tends to tear its parts asunder. It therefore acts with its whole absolute force, and a very small scantling would suffice if we could contrive to fasten it firmly enough to the foot of the rafter. If it is of oak, we may safely subject it to a strain of three tons for every square inch of its section. And fir will safely bear a strain of two tons for every square inch. But we are obliged to give the tie-beam much larger dimensions, that we may be able to connect it with the foot of the rafter by a mortise and tenon. Iron straps are also frequently added. By attending to this office of the tie-beam, the judicious carpenter is directed to the proper form of the mortise and tenon and of the strap. We shall consider both of these in a proper place, after we become acquainted with the various strains at the joints of a roof.

Fig. 14.

These large dimensions of the tie-beam allow us to load it with the ceilings without any risk, and even to lay floors on it with moderation and caution. But when it has a great bearing or span, it is very apt to bend downwards in the middle, or, as the workmen term it, to sway or swag; and it requires a support. The question is, where to find this support? What fixed points can we find with which to connect the middle of the tie-beam? Some ingenious carpenter thought of suspending it from the ridge by a piece of timber BD (fig. 15.), called by our carpenters the *king-post*. It must

Fig. 15.

Roof.

must be acknowledged that there was great ingenuity in this thought. It was also perfectly just. For the weight of the rafters BA, BC tends to make them fly out at the foot. This is prevented by the tie-beam, and this excites a pressure, by which they tend to compress each other. Suppose them without weight, and that a great weight is laid on the ridge B. This can be supported only by the butting of the rafters in their own directions AB and CB, and the weight tends to compress them in the opposite directions, and through their intervention, to stretch the tie-beam. If neither the rafters can be compressed, nor the tie beam stretched, it is plain that the triangle ABC must retain its shape, and that B becomes a fixed point, very proper to be used as a point of suspension. To this point, therefore, is the tie-beam suspended by means of the king-post. A common spectator unacquainted with carpentry, views it very differently, and the tie-beam appears to him to carry the roof. The king-post appears a pillar resting on the beam, whereas it is really a string; and an iron-rod of one-sixteenth of the size would have done just as well. The king-post is sometimes mortised into the tie-beam, and pins put through the joint, which gives it more the look of a pillar with the roof resting on it. This does well enough in many cases. But the best method is to connect them by an iron strap like a stirrup, which is bolted at its upper ends into the king-post, and passes round the tie-beam. In this way a space is commonly left between the end of the king-post and the upper side of the tie-beam. Here the beam plainly appears hanging in the stirrup; and this method allows us to restore the beam to an exact level, when it has sunk by the unavoidable compression or other yielding of the parts. The holes in the sides of the iron strap are made oblong instead of round; and the bolt which is drawn through all is made to taper on the under side; so that driving it farther draws the tie-beam upwards. A notion of this may be formed by looking at fig. 16. which is a section of the post and beam.

Fig. 16.

It requires considerable attention, however, to make this suspension of the tie-beam sufficiently firm. The top of the king-post is cut into the form of the arch-stone of a bridge, and the heads of the rafters are firmly mortised into this projecting part. These projections are called joggles, and are formed by working the king-post out of a much larger piece of timber, and cutting off the unnecessary wood from the two sides; and, lest all this should not be sufficient, it is usual in great works to add an iron-plate or strap of three branches, which are bolted into the heads of the king-post and rafters.

The rafters, though not so long as the beam, seem to stand as much in need of something to prevent their bending, for they carry the weight of the covering.—This cannot be done by suspension, for we have no fixed points above them: But we have now got a very firm point of support at the foot of the king-post.—*Braces*, or *struts*, ED, FD, (fig. 17.), are put under the middle of the rafters, where they are slightly mortised, and their lower ends are firmly mortised into joggles formed on the foot of the king-post. As these braces are very powerful in their resistance to compression, and the king-post equally so to resist extension, the points E and F may be considered as fixed; and the rafters being thus reduced to half their former length, have now four times their former relative strength.

Fig. 17.

Roofs do not always consist of two sloping sides meeting in a ridge. They have sometimes a flat on the top, with two sloping sides. They are sometimes formed with a double slope, and are called *kirb* or *mansarde roofs*. They sometimes have a valley in the middle, and are then called M roofs. Such roofs require another piece which may be called the *truss-beam*, because all such frames are called *trusses*, probably from the French word *trousse*, because such roofs are like portions of plain roofs, *trousses* or shortened.

37 Construction of flat-topped roofs.

A flat-topped roof is thus constructed. Suppose the three rafters AB, BC, CD (fig. 18.) of which AB and CD are equal, and BC horizontal. It is plain that they will be in equilibrio, and the roof have no tendency to go to either side. The tie-beam AD withstands the horizontal thrusts of the whole frame, and the two rafters AB and CD are each pressed in their own directions in consequence of their butting with the middle rafter or truss-beam BC. It lies between them like the key-stone of an arch. They lean towards it, and it rests on them. The pressure which the truss-beam and its load excites on the two rafters is the very same as if the rafters were produced till they meet in G, and a weight were laid on these equal to that of BC and its load. If therefore the truss-beam is of a scantling sufficient for carrying its own load, and withstanding the compression from the two rafters, the roof will be equally strong, (while it keeps its shape) as the plain roof AGD, furnished with king-post and braces. We may conceive this another way. Suppose a plain roof AGD, without braces to support the middle B and C of the rafters. Then let a beam BC be put in between the rafter, butting upon little notches cut in the rafters. It is evident that this must prevent the rafters from bending downwards, because the points B and C cannot descend, moving round the centres A and D, without shortening the distance BC between them. This cannot be without compressing the beam BC. It is plain that BC may be wedged in, or wedges driven in between its ends B and C and the notches in which it is lodged. These wedges may be driven in till they even force out the rafters GA and GD. Whenever this happens, all the mutual pressure of the heads of these rafters at G is taken away, and the parts GB and GC may be cut away, and the roof ABCD will be as strong as the roof AGD furnished with the king-post and braces, because the truss-beam gives a support of the same kind at B and C as the brace would have done.

Fig. 18.

But this roof ABCD would have no firmness of shape. Any addition of weight on one side would destroy the equilibrium at the angle, would depress that angle, and cause the opposite one to rise. To give it stiffness, it must either have ties or braces, or something partaking of the nature of both. The usual method of framing is to make the heads of the rafters butt on the joggles of two side-posts BE and CF, while the truss-beam, or strut as it is generally termed by the carpenters, is mortised square into the inside of the heads. The lower ends E and F of the side-posts are connected with the tie-beam either by mortises or straps.

This construction gives firmness to the frame; for the angle B cannot descend in consequence of any inequality

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quality of pressure, without forcing the other angle C to rise. This it cannot do, being held down by the post CF. And the same construction fortifies the tie-beam, which is now suspended at the points E and F from the points B and C, whose firmness we have just now shown.

38 They are not so strong as the plain roofs.

But although this roof may be made abundantly strong, it is not quite so strong as the plain roof AGD of the same scantling. The compression which BC must sustain in order to give the same support to the rafters at B and C that was given by braces properly placed, is considerably greater than the compression of the braces. And this strain is an addition to the transverse strain which BC gets from its own load. Also this form necessarily exposes the tie-beam to cross strains. If BE is mortised into the tie-beam, then the strain which tends to depress the angle ABC presses on the tie-beam at E transversely, while a contrary strain acts on F, pulling it upwards. These strains however are small; and this construction is frequently used, being susceptible of sufficient strength, without much increase of the dimensions of the timbers; and it has the great advantage of giving free room in the garrets. Were it not for this, there is a much more perfect form represented in fig. 19. Here the two posts BE, CF are united below. All transverse action on the tie-beam is now entirely removed. We are almost disposed to say that this is the strongest roof of the same width and slope: for if the iron strap which connects the pieces BE, CF with the tie-beam have a large bolt G through it, confining it to one point of the beam, there are five points, A, B, C, D, G, which cannot change their places, and there is no transverse strain in any of the connections.

Fig. 19.

When the dimensions of the building are very great, so that the pieces AB, BC, CD, would be thought too weak for withstanding the cross strains, braces may be added as is expressed in fig. 18. by the dotted lines. The reader will observe, that it is not meant to leave the top flat externally: it must be raised a little in the middle to shoot off the rain. But this must not be done by incurvating the beam BC. This would soon be crushed, and spring upwards. The slopes must be given by pieces of timber, added above the strutting-beam.

9 Members of which the frame of a roof consists.

And thus we have completed a frame of a roof. It consists of these principal members: The rafters, which are immediately loaded with the covering; the tie-beam, which withstands the horizontal thrust by which the roof tends to fly out below and push out the walls; the king-posts, which hang from fixed points and serve to uphold the tie-beam, and also to afford other fixed points on which we may rest the braces which support the middle of the rafters; and lastly the truss or strutting-beam, which serves to give mutual abutment to the different parts which are at a distance from each other. The rafters, braces, and trusses are exposed to compression, and must therefore have not only cohesion but stiffness. For if they bend, the prodigious compressions to which they are subjected would quickly crush them in this bended state. The tie-beams and king posts, if performing no other office but supporting the roof, do not require stiffness, and their places might be supplied by ropes, or by rods of iron of one-tenth part of the section that even the smallest oak stretcher requires. These members require no greater dimensions than what is necessary for giving sufficient joints, and any more is a needless expence and load. All roofs, however complicated, consist of these essential parts, and if pieces of timber are to be seen which perform none of these offices, they must be pronounced useless, and they are frequently hurtful, by producing cross strains in some other piece. In a roof properly constructed there should be no such strains. All the timbers, except those which immediately carry the covering, should be either pushed or drawn in the direction of their length. And this is the rule by which a roof should always be examined.

40 are susceptible of numberless combinations and varieties.

These essential parts are susceptible of numberless combinations and varieties. But it is a prudent maxim to make the construction as simple, and consisting of as few parts, as possible. We are less exposed to the imperfections of workmanship, such as loose joints, &c. Another essential harm arises from many pieces, by the compression and the shrinking of the timber in the cross direction of the fibres. The effect of this is equivalent to the shortening of the piece which butts on the joint. This alters the proportions of the sides of the triangle on which the shape of the whole depends. Now in a roof such as fig. 18. there is twice as much of this as in the plain pent roof, because there are two posts. And when the direction of the butting pieces is very oblique to the action of the load, a small shrinking permits a great change of shape. Thus in a roof of what is called pediment pitch, where the rafters make an angle of 30 degrees with the horizon, half an inch compression of the king-post will produce a sagging of an inch, and occasion a great strain on the tie-beam if the posts are mortised into it. In fig. 2. of the roofs in the article ARCHITECTURE, Plate LII. half an inch shrinking of each of the two posts will allow the middle to sag above five inches. Fig. 1. of the same plate is faulty in this respect, by cutting the strutting-beam in the middle. The strutting-beam is thus shortened by three shrinkings, while there is but one to shorten the rafters. The consequence is, that the truss which is included within the rafters will sag away from them, and then they must bend in the middle till they again rest on this included truss. This roof is, however, constructed on the whole on good principles, and we adduce it only to show the advantages of simplicity. This cutting of the trussing-beam is unavoidable, if we would preserve the king-post. But we are in doubt whether the service performed by it in this case will balance the inconvenience. It is employed only to support the middle of the upper half of each rafter, which it does but imperfectly, because the braces and strut must be cut half through at their crossing: if these joints are made tight, as a workman would wish to do, the settling of the roof will cause them to work on each other crosswise with insuperable force, and will undoubtedly strain them exceedingly.

This method of including a truss within the rafters of a pent roof is a very considerable addition to the art of carpentry. But to insure its full effect it should always be executed in the manner represented in fig. 1. Pl. LII. with butting rafters under the principal ones, butting on joggles in the heads of the posts. Without this the strut beam is hardly of any service. We would therefore recommend fig 20. as a proper construction of Fig. 20.

Roof.

a trussed roof, and the king-post, which is placed in it may be employed to support the upper part of the rafters, and also for preventing the strut-beam from bending in their direction in consequence of its great compression. It will also give a suspension for the great burdens which are sometimes necessary in a theatre. The machinery has no other firm points to which it can be attached; and the portions of the single rafters which carry this king-post are but short, and therefore may be considerably loaded with safety.

We observe in the drawings which we sometimes have of Chinese buildings, that the trussing of roofs is understood by them. Indeed they must be very experienced carpenters. We see wooden buildings run up to a great height, which can be supported only by such trussing. One of these is sketched in fig. 21. There are some very excellent specimens to be seen in the buildings at Deptford, belonging to the victualling-office, usually called the *Red house*, which were erected about the year 1788, and we believe are the performance of Mr James Arrow of the Board of Works, one of the most intelligent artists in this kingdom.

Fig. 21.

41 Remarks addressed to practical carpenters.

Thus have we given an elementary, but a rational or scientific, account of this important part of the art of carpentry. It is such, that any practitioner, with the trouble of a little reflection, may always proceed with confidence, and without resting any part of his practice on the vague notions which habit may have given him of the strength and supports of timbers, and of their manner of acting. That these frequently mislead, is proved by the mutual criticisms which are frequently published by the rivals in the profession. They have frequently sagacity enough (for it seldom can be called science) to point out glaring blunders; and any person who will look at some of the performances of Mr Price, Mr Wyatt, Mr Arrow, and others of acknowledged reputation, will readily see them distinguishable from the works of inferior artists by simplicity alone. A man without principles is apt to consider an intricate construction as ingenious and effectual; and such roofs sometimes fail merely by being ingeniously loaded with timber, but more frequently still by the wrong action of some useless pieces, which produces strains that are transverse to other pieces, or which, by rendering some points too firm, cause them to be deserted by the rest in the general subsiding of the whole. Instances of this kind are pointed out by Price in his British Carpenter. Nothing shews the skill of a carpenter more than the distinctness with which he can foresee the changes of shape which must take place in a short time in every roof. A knowledge of this will often correct a construction which the mere mathematician thinks unexceptionable, because he does not reckon on the actual compression which must obtain, and imagines that his triangles, which sustain no cross strains, invariably retain their shape till the pieces break. The sagacity of the experienced carpenter is not, however, enough without science for perfecting the art. But when he knows how much a particular piece will yield to compression in one case, science will tell him, and nothing but science can do it, what will be the compression of the same piece in another very different case. Thus he learns how far it will now yield, and then he proportions the parts so to each other, that when all have yielded according to their strains, the whole is of the shape he wished to produce, and every joint is in a state of firmness. It is here that we observe the greatest number of improprieties. The iron straps are frequently in positions not suited to the actual strain on them, and they are in a state of violent twist, which both tends strongly to break the strap, and to cripple the pieces which they surround.

In like manner, we frequently see joints or mortises in a state of violent strain on the tenons, or on the heels and shoulders. The joints were perhaps properly shaped for the primitive form of the truss; but by its settling, the bearing of the push is changed: the brace for example, in a very low pitched roof, comes to press with the upper part of the shoulder, and, acting as a powerful lever on the tenon, breaks it. In like manner the lower end of the brace, which at first butted firmly and squarely on the joggle of the king-post, now presses with one corner in prodigious force, and seldom fails to splinter off on that side. We cannot help recommending a maxim of Mr Perronet the celebrated hydraulic architect of France, as a golden rule, viz. to make all the shoulders of butting pieces in the form of an arch of a circle, having the opposite end of the piece for its centre. Thus, in fig. 18. if the joggle-point B be of this form, having A for its centre, the sagging of the roof will make no partial bearing at the joint; for in the sagging of the roof, the piece AB turns or bends round the centre A, and the counter pressure of the joggle is still directed to A, as it ought to be. We have just now said *bends* round A. This is too frequently the case, and it is always very difficult to give the tenon and mortise in this place a true and invariable bearing. The rafter pushes in the direction BA, and the beam resists in the direction AD. The abutment should be perpendicular to neither of these, but in an intermediate direction, and it ought also to be of a curved shape. But the carpenters perhaps think that this would weaken the beam too much to give it this shape in the shoulder; they do not even aim at it in the heel of the tenon. The shoulder is commonly even with the surface of the beam. When the bearing therefore is on this shoulder, it causes the foot of the rafter to slide along the beam till the heel of the tenon bears against the outer end of the mortise (See Price's British Carpenter, Plate C. fig. IK). This abutment is perpendicular to the beam in Price's book, but it is more generally pointed a little outwards below, to make it more secure against starting. The consequence of this construction is, that when the roof settles, the shoulder comes to bear at the inner end of the mortise, and it rises at the outer, and the tenon taking hold of the wood beyond it, either tears it out or is itself broken. This joint therefore is seldom trusted to the strength of the mortise and tenon, and is usually secured by an iron strap, which lies obliquely to the beam, to which it is bolted by a large bolt quite through, and then embraces the outside of the rafter foot. Very frequently this strap is not made sufficiently oblique, and we have seen some made almost square with the beam. When this is the case, it not only keeps the foot of the rafter from flying out, but it binds it down. In this case, the rafter acts as a powerful lever, whose fulcrum is in the inner angle of the shoulder, and then the strap never fails to cripple the rafter at the point. All this can be prevented only by making the strap very long and very oblique, and by making its outer end (the stirrup

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stirrup part) square with its length, and making a notch in the rafter foot to receive it. It cannot now cripple the rafter, for it will rise along with it, turning round the bolt at its inner end. We have been thus particular on this joint, because it is here that the ultimate strain of the whole roof is exerted, and its situation will not allow the excavation necessary for making it a good mortise and tenon.

Similar attention must be paid to some other straps, such at those which embrace the middle of the rafter, and connect it with the post or truss below it. We must attend to the change of shape produced by the fagging of the roof, and place the strap in such a manner as to yield to it by turning round its bolt, but so as not to become loose, and far less to make a fulcrum for any thing acting as a lever. The strains arising from such actions, in framings of carpentry which change their shape by fagging, are enormous, and nothing can resist them.

42 Mode of calculating strains or thrusts.

We shall close this part of the subject with a simple method, by which any carpenter, without mathematical science, may calculate with sufficient precision the strains or thrusts which are produced on any point of his work, whatever be the obliquity of the pieces.

Let it be required to find the horizontal thrust acting on the tie-beam AD of fig. 18. This will be the same as if the weight of the whole roof were laid at G on the two rafters GA and GD. Draw the vertical line GH. Then, having calculated the weight of the whole roof that is supported by this single frame ABCD, including the weight of the pieces AB, BC, CD, BE, CF themselves, take the number of pounds, tons, &c. which expresses it from any scale of equal parts, and set it from G to H. Draw HK, HL parallel to GD, GA, and draw the line KL, which will be horizontal when the two sides of the roof have the same slope. Then ML measured on the same scale will give the horizontal thrust, by which the strength of the tie-beam is to be regulated. GL will give the thrust which tends to crush the rafters, and LM will also give the force which tends to crush the strut-beam BC.

In like manner, to find the strain of the king-post BD of fig. 17. consider that each brace is pressed by half the weight of the roofing laid on BA or BC, and this pressure, or at least its hurtful effect, is diminished in the proportion of BA to DA, because the action of gravity is vertical, and the effect which we want to counteract by the braces is in a direction E *e* perpendicular to BA or BC. But as this is to be resisted by the brace *f* E acting in the direction *f* E, we must draw *f e* perpendicular to E *e*, and suppose the strain augmented in the proportion of E *e* to E *f*.

Having thus obtained in tons, pounds, or other measures, the strains which must be balanced at *f* by the cohesion of the king-post, take this measure from the scale of equal parts, and set it off in the directions of the braces to G and H, and complete the parallelogram G *f* HK; and *f* K measured on the same scale will be the strain on the king-post.

43 and the strength of the truss.

The artist may then examine the strength of his truss upon this principle, that every square inch of oak will bear at an average 7000 pounds compressing or stretching it, and may be safely loaded with 3500 for any length of time; and that a square inch of fir will in like manner securely bear 2500. And, because straps are used to resist some of these strains, a square inch of well wrought tough iron may be safely strained by 50,000 pounds. But the artist will always recollect, that we cannot have the same confidence in iron as in timber. The faults of this last are much more easily perceived; and when the timber is too weak, it gives us warning of its failure, by yielding sensibly before it breaks. This is not the case with iron; and much of its service depends on the honesty of the blacksmith.

44 Sketch of some truss roofs, &c.

In this way may any design of a roof be examined. We shall here give the reader a sketch of two or three trussed roofs, which have been executed in the chief varieties of circumstances which occur in common practice.

Fig. 22. is the roof of St Paul's Church, Covent Garden, London, the work of Inigo Jones. Its construction is singular. The roof extends to a considerable distance beyond the building, and the ends of the tie-beams support the Tuscan corniche, appearing like the mutules of the Doric order. Such a roof could not rest on the tie-beam. Inigo Jones has therefore supported it by a truss below it; and the height has allowed him to make this extremely strong with very little timber. It is accounted the highest roof of its width in London. But this was not difficult, by reason of the great height which its extreme width allowed him to employ without hurting the beauty of it by too high a pitch. The supports, however, are disposed with judgement (A). Fig. 22.

Fig. 23. is a kirb or mansard roof by Price, and supposed to be of large dimensions, having braces to carry the middle of the rafters. Fig. 23.

It will serve exceedingly well for a church having pillars. The middle part of the tie-beam being taken away, the strains are very well balanced, so that there is no risk of its pushing aside the pillar on which it rests.

Fig. 24. is the celebrated roof of the theatre of the university of Oxford, by Sir Christopher Wren. The span between the walls is 75 feet. This is accounted a very ingenious, and is a singular performance. The middle part of it is almost unchangeable in its form; but from this circumstance it does not distribute the horizontal thrust with the same regularity as the usual construction. The horizontal thrust on the tie-beam is about twice the weight of the roof, and is withstood by an iron strap below the beam, which stretches the whole width of the building in the form of a rope, making part of the ornament of the ceiling. Fig. 24.

45 Cases in which the thrust cannot be discharged from the walls by the tie-beam.

In all the roofs which we have considered hitherto, the thrust is discharged entirely from the walls by the tie-beam. But this cannot always be done. We frequently want great elevation within, and arched ceilings. In such cases, it is a much more difficult matter to keep the walls free of all pressure outwards, and there are few buildings where it is completely done. Yet this is the greatest fault of a roof. We shall just point out the methods which may be most successfully adopted.

We have said that a tie-beam just performs the office of a string. We have said the same of the king-post. Now

(A) This church was burnt down a few years ago.

Roof.

Fig. 25. Now suppose two rafters AB, BC, (fig. 25.) moveable about the point B, and resting on the top of the walls. If the line BD be suspended from B, and the two lines DA, DC be fastened to the feet of the rafters, and if these lines be incapable of extension, it is plain that all thrust is removed from the walls as effectually as by a common tie-beam. And by shortening BD to B *d*, we gain a greater inside height, and more room for an arched ceiling. Fig. 26. Now if we substitute a king-post BD (fig. 26.) and two stretchers or hammer-beams DA, DC for the other strings, and connect them firmly by means of iron straps, we obtain our purpose.

Let us compare this roof with a tie-beam roof in point of strain and strength. Recur to fig. 25. and complete the parallelogram ABCF, and draw the diagonals AC, BF crossing in E. Draw BG perpendicular to CD. We have seen that the weight of the roof (which we may call W) is to the horizontal thrust at C as BF to EC; and if we express this thrust by T, we have $T = \frac{W \times EC}{BF}$. We may at present consider BC as a lever moveable round the joint B, and pulled at C in the direction EC by the horizontal thrust, and held back by the string pulling in the direction CD. Suppose that the forces in the directions EC and CD are in equilibrio, and let us find the force S by which the string CD is strained. These forces must (by the property of the lever) be inversely as the perpendiculars drawn from the centre of motion on the lines of their direction. Therefore BG : BE = T : S, and $S = T \times \frac{BE}{BG}, = W \times \frac{BE.EC}{BF.BG}$.

Therefore the strain upon each of the ties DA and DC is always greater than the horizontal thrust or the strain on a simple tie-beam. This would be no great inconvenience, because the smallest dimensions that we could give to these ties, so as to procure sufficient fixtures to the adjoining pieces, are always sufficient to withstand this strain. But although the same may be said of the iron straps which make the ultimate connections, there is always some hazard of imperfect work, cracks, or flaws, which are not perceived. We can judge with tolerable certainty of the soundness of a piece of timber, but cannot say so much of a piece of iron. Moreover, there is a prodigious strain excited on the king-post, when BG is very short in comparison of BE, namely, the force compounded of the two strains S and S on the ties DA and DC.

But there is another defect from which the straight tie-beam is entirely free. All roofs settle a little.—When this roof settles, and the points B and D descend, the legs BA, BC must spread further out, and thus a pressure outwards is excited on the walls. It is seldom therefore that this kind of roof can be executed in this simple form, and other contrivances are necessary for counteracting this supervening action on the walls. Fig. 27. Fig. 27. is one of the best which we have seen, and is executed with great success in the circus or equestrian theatre (now, 1809, a concert room) in Edinburgh, the width being 60 feet. The pieces EF and ED help to take off some of the weight, and by their greater uprightness they exert a smaller thrust on the walls. The beam D *d* is also a sort of truss-beam, having something of the same effect. Mr Price has given another very judicious one of this kind, British Carpenter, Plate I K, fig. C, from which the tie-beam may be taken away, and there will remain very little thrust on the walls. Those which he has given in the following Plate K are, in our opinion, very faulty. The whole strain in these last roofs tends to break the rafters and ties transversely, and the fixtures of the ties are also not well calculated to resist the strain to which the pieces are exposed. We hardly think that these roofs could be executed.

46 General observations.

It is scarcely necessary to remind the reader, that in all that we have delivered on this subject, we have attended only to the construction of the principal rafters or trusses. In small buildings all the rafters are of one kind; but in great buildings the whole weight of the covering is made to rest on a few principal rafters, which are connected by beams placed horizontally, and either mortised into them or scarfed on them. These are called *purlins*. Small rafters are laid from purlin to purlin; and on these the laths for tiles, or the skirting-boards for slates, are nailed. Thus the covering does not immediately rest on the principal frames. This allows some more liberty in their construction, because the garrets can be so divided that the principal rafters shall be in the partitions and the rest left unencumbered. This construction is so far analogous to that of floors which are constructed with girders, binding, and bridging joists.

It may appear presuming in us to question the propriety of this practice. There are situations in which it is unavoidable, as in the roofs of churches, which can be allowed to rest on some pillars. In other situations, where partition-walls intervene at a distance not too great for a stout purlin, no principal rafters are necessary, and the whole may be roofed with short rafters of very slender scantling. But in a great uniform roof, which has no intermediate supports, it requires at least some reasons for preferring this method of carcase-roofing to the simple method of making all the rafters alike. The method of carcase-roofing requires the selection of the greatest logs of timber, which are seldom of equal strength and soundness with thinner rafters. In these the outside planks can be taken off, and the best part alone worked up. It also exposes to all the defects of workmanship in the mortising of purlins, and the weakening of the rafters by this very mortising; and it brings an additional load of purlins and short rafters. A roof thus constructed may surely be compared with a floor of similar construction. Here there is not a shadow of doubt, that if the girders were sawed into planks, and these planks laid as joists sufficiently near for carrying the flooring boards, they will have the same strength as before, except so much as is taken out of the timber by the saw. This will not amount to one-tenth part of the timber in the binding, bridging, and ceiling joists, which are an additional load, and all the mortises and other joinings are so many diminutions of the strength of the girders; and as no part of a carpenter's work requires more skill and accuracy of execution, we are exposed to many chances of imperfection. But, not to rest on these considerations, however reasonable they may appear, we shall relate an experiment made by one on whose judgment and exactness we can depend.

47 Confirmed by experiment.

Two models of floors were made 18 inches square of the finest uniform deal, which had been long seasoned. The

The one consisted of simple joists, and the other was framed with girders, binding, bridging, and ceiling joists. The plain joists of the one contained the same quantity of timber with the girders alone of the other, and both were made by a most accurate workman. They were placed in wooden trunks 18 inches square within, and rested on a strong projection on the inside. Small shot was gradually poured in upon the floors, so as to spread uniformly over them. The plain joisted floor broke down with 487 pounds, and the carcase floor with 327. The first broke without giving any warning; the other gave a violent crack when 294 pounds had been poured in.

A trial had been made before, and the loads were 341 and 482. But the models having been made by a less accurate hand, it was not thought a fair specimen of the strength which might be given to a carcase floor.

The only argument of weight which we can recollect in favour of the compound construction of roofs is, that the plain method would prodigiously increase the quantity of work, would admit nothing but long timber, which would greatly add to the expence, and would make the garrets a mere thicket of planks. We admit this in its full force; but we continue to be of the opinion that plain roofs are greatly superior in point of strength, and therefore should be adopted in cases where the great difficulty is to insure this necessary circumstance.

48 Of the roofs put on round buildings.

It would appear very neglectful to omit an account of the roofs put on round buildings, such as domes, cupolas, and the like. They appear to be the most difficult tasks in the carpenter art. But the difficulty lies entirely in the mode of framing, or what the French call the *trait de charpenterie*. The view which we are taking of the subject, as a part of mechanical science, has little connection with this. It is plain, that whatever form of a truss is excellent in a square building must be equally so as one of the frames of a round one; and the only difficulty is how to manage their mutual intersections at the top. Some of them must be discontinued before they reach that length, and common sense will teach us to cut them short alternately, and always leave as many, that they may stand equally thick as at their first springing from the base of the dome. Thus the length of the purlins which reach from truss to truss will never be too great.

The truth is, that a round building which gathers in at top, like a glass-house, a potter's kiln, or a spire steeple, instead of being the most difficult to erect with stability, is of all others the easiest. Nothing can show this more forcibly than daily practice, where they are run up without centres and without scaffoldings; and it requires gross blunders indeed in the choice of their outline to put them in much danger of falling from a want of equilibrium. In like manner, a dome of carpentry can hardly fall, give it what shape or what construction you will. It *cannot* fall unless some part of it flies out at the bottom: an iron hoop round it, or straps at the joinings of the trusses and purlins, which make an equivalent to a hoop, will effectually secure it. And as beauty requires that a dome shall spring almost perpendicularly from the wall, it is evident that there is hardly any thrust to force out the walls. The only part where this is to be guarded against is, where the tangent is inclined about 40 or 50 degrees to the horizon. Here it will be proper to make a course of firm horizontal joinings.

We doubt not but that domes of carpentry will now be raised of great extent. The Halle du Bled at Paris, of 200 feet in diameter, was the invention of an intelligent carpenter, the Sieur Moulineau. He was not by any means a man of science, but had much more mechanical knowledge than artisans usually have, and was convinced that a very thin shell of timber might not only be so shaped as to be nearly in equilibrio, but that if hooped or firmly connected horizontally, it would have all the stiffness that was necessary; and he presented his project to the magistracy of Paris. The grandeur of it pleased them, but they doubted of its possibility. Being a great public work, they prevailed on the Academy of Sciences to consider it. The members, who were competent judges, were instantly struck with the justness of Mr Moulineau's principles, and astonished that a thing so plain had not been long familiar to every house-carpenter. It quickly became an universal topic of conversation, dispute, and cabal, in the polite circles of Paris. But the Academy having given a very favourable report of their opinion, the project was immediately carried into execution, and soon completed; and now stands as one of the great exhibitions of Paris.

The construction of this dome is the simplest thing that can be imagined. The circular ribs which compose it consist of planks nine feet long, 13 inches broad, and three inches thick: and each rib consists of three of these planks bolted together in such a manner that two points meet. A rib is begun, for instance, with a plank of three feet long standing between one of six feet and another of nine, and this is continued to the head of it. No machinery was necessary for carrying up such small pieces, and the whole went up like a piece of bricklayer's work. At various distances these ribs were connected horizontally by purlins and iron straps, which made so many hoops to the whole. When the work had reached such a height, that the distance of the ribs was two-thirds of the original distance, every third rib was discontinued, and the space was left open and glazed. When carried so much higher that the distance of the ribs is one-third of the original distance, every second rib (now consisting of two ribs very near each other) is in like manner discontinued, and the void is glazed. A little above this the heads of the ribs are framed into a circular ring of timber, which forms a wide opening in the middle; over which is a glazed canopy or umbrella, with an opening between it and the dome for allowing the heated air to get out. All who have seen this dome say, that it is the most beautiful and magnificent object they have ever beheld.

The only difficulty which occurs in the construction of wooden domes is, when they are unequally loaded, by carrying a heavy lanthern or cupola in the middle. In such a case, if the dome were a mere shell, it would be crushed in at the top, or the action of the wind on the lanthern might tear it out of its place. Such a dome must therefore consist of trussed frames. Mr Price has given a very good one in his plate OP, though much stronger in the trusses than there was any occasion for. This causes a great loss of room, and throws the lights of the lanthern too far up. It is evidently copied from Sir Christopher Wren's dome of

St

ROOFS.

PLATE CCCCLXIII.

Fig. 1.

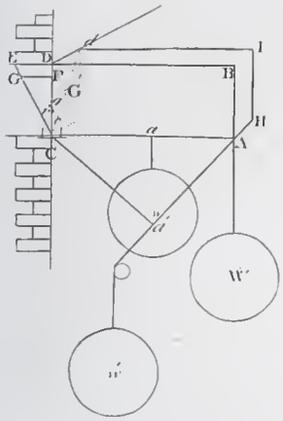


Fig. 2.

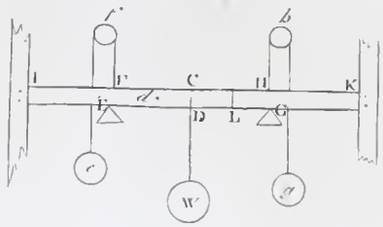


Fig. 3.

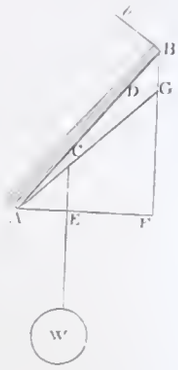


Fig. 4.

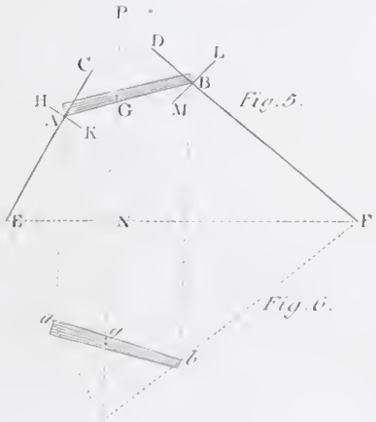
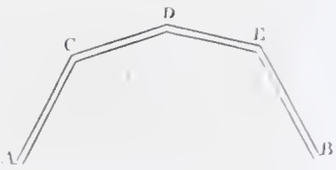


Fig. 5.

Fig. 6.

Fig. 7.



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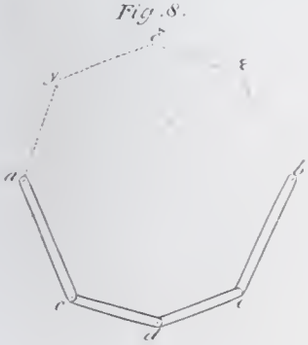


Fig. 9.

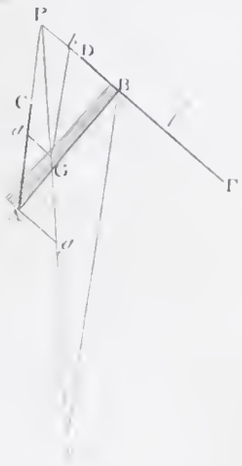
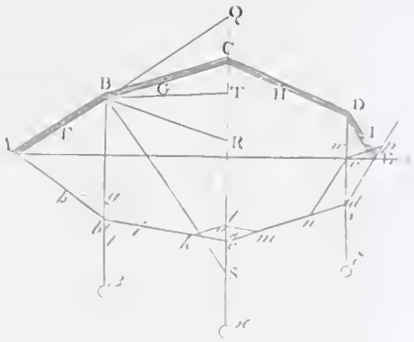


Fig. 10.



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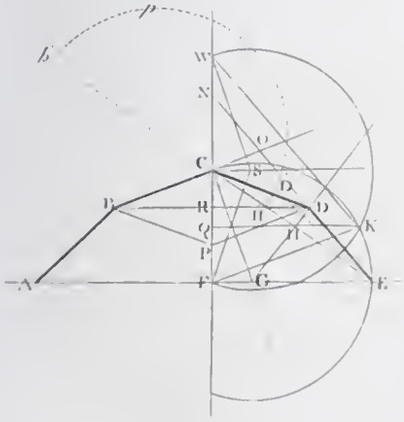

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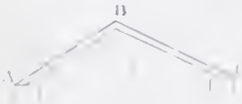
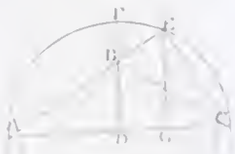


Fig. 13.



ROOFS.

PLATE CCCCLXIV.

Fig. 15.

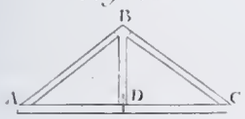
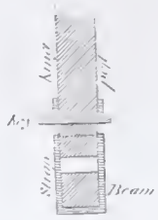


Fig. 16.



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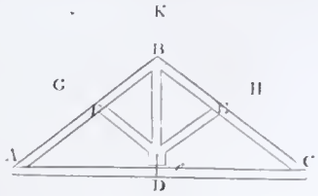

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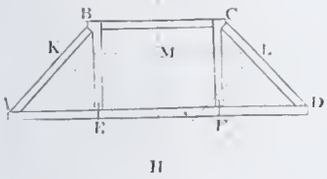

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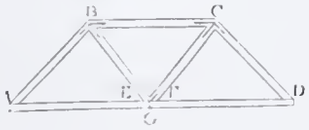

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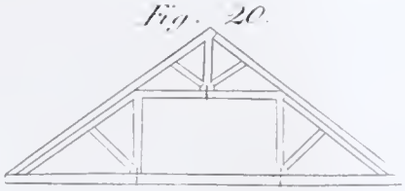

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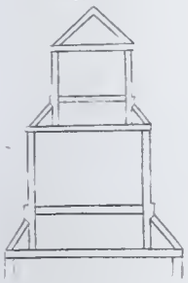

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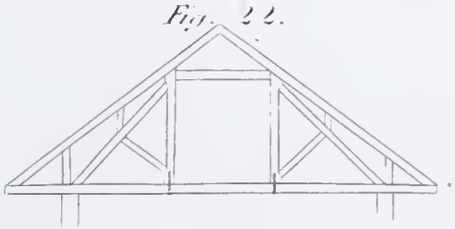

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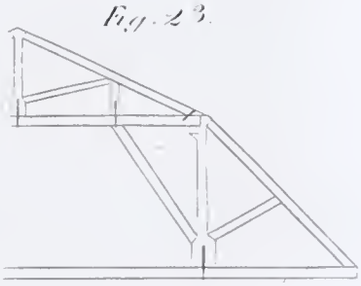

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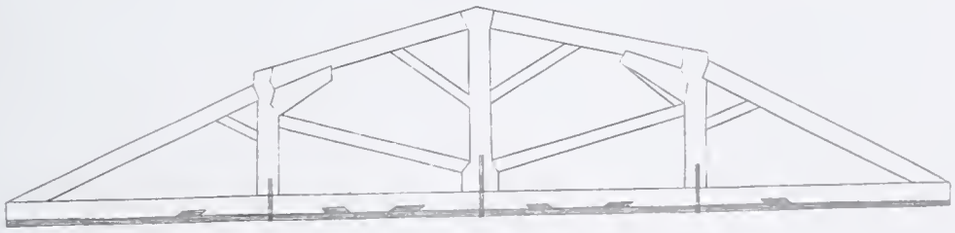


Fig. 25.

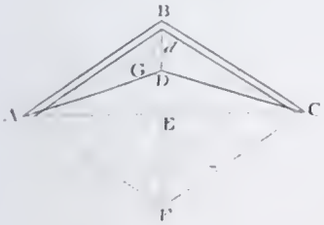


Fig. 27.

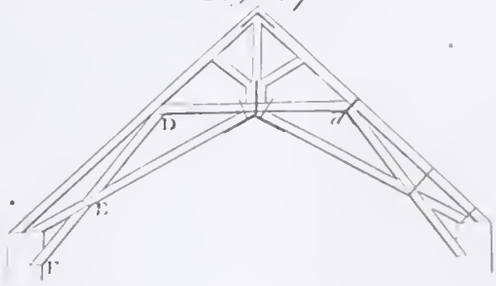


Fig. 26.

Fig. 29.

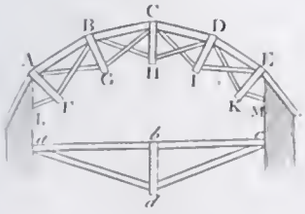


Fig. 28.

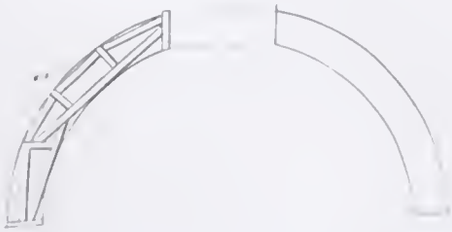
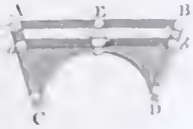


Fig. 30.



Roof. St Paul's church in London; a model of propriety in its particular situation, but by no means a general model of a wooden dome. It rests on the brick cone within it; and Sir Christopher has very ingeniously made use of it for stiffening this cone, as any intelligent person will perceive by attending to its construction (See *Price*, Plate OP.).

Fig. 28. Fig. 28. presents a dome executed in the Register Office in Edinburgh by James and Robert Adam, and is very agreeable to mechanical principles. The span is 50 feet clear, and the thickness is only 4½.

49 Further remarks on Norman roofs. We cannot take leave of the subject without taking some notice of what we have already spoken of with commendation by the name of *Norman roofs*. We called them *Norman*, because they were frequently executed by that people soon after their establishment in Italy and other parts of the south of Europe, and became the prevailing taste in all the great baronial castles. Their architects were rivals to the Saracens and Moors, who about that time built many Christian churches; and the architecture which we now call Gothic seems to have arisen from their joint labours.

The principle of a Norman roof is extremely simple. Fig. 29 The rafters all butted on joggled king-posts AF, BG, CH, &c. (fig. 29.), and braces or ties were then disposed in the intervals. In the middle of the roof HB and HD are evidently ties in a state of extension, while the post CH is compressed by them. Towards the walls on each side, as between B and F, and between F and L, they are braces, and are compressed. The ends of the posts were generally ornamented with knots of flowers, embossed globes, and the like, and the whole texture of the truss was exhibited and dressed out.

This construction admits of employing very short timbers; and this very circumstance gives greater strength to the truss, because the angle which the brace or tie makes with the rafter is more open. We may also perceive that all thrust may be taken off the walls. If the pieces AF, BF, LF, be removed, all the remaining diagonal pieces act as ties, and the pieces directed to the centre act as struts; and it may also be observed, that the principle will apply equally to a straight or flat roof or to a floor. A floor such as *a b c*, having the joint in two pieces *a b*, *b c*, with a strut *b d*, and two ties, will require a much greater weight to break it than if it had a continued joist *a c* of the same scantling. And, lastly, a piece of timber acting as a tie is much stronger than the same piece acting as a strut: for in the latter situation it is exposed to bending, and when bent it is much less able to withstand a very great strain. It must be acknowledged, however, that this advantage is balanced by the great inferiority of the joints in point of strength. The joint of a tie depends wholly on the pins; for this reason they are never used in heavy works without strapping the joints with iron. In the roofs we are now describing the diagonal pieces of the middle part only act purely as ties, while those towards the sides act as struts or braces. Indeed they are seldom of so very simple construction as we have described, and are more generally constructed like the Fig. 30. sketch in fig. 30. having two sets of rafters AB, *a b*, and the angles are filled up with thin planks, which give great stiffness and strength. They have also a double set of purlins, which connect the different trusses. The roof being thus divided into squares, other purlins run between the middle points E of the rafters. The rafter is supported at E by a check put between it and the under rafter. The middle point of each square of the roof is supported and stiffened by four braces, one of which springs from *c*, and its opposite from the similar part of the adjoining truss. The other two braces spring from the middle points of the lower purlins, which go horizontally from *a* and *b* to the next truss, and are supported by planks in the same manner as the rafters. By this contrivance the whole becomes very stiff and strong.

50 Conclusion. We hope that the reader will not be displeased with our having taken some notice of what was the pride of our ancestors, and constituted a great part of the finery of the grand hall, where the feudal lord assembled his vassals and displayed his magnificence. The intelligent mechanic will see much to commend; and all who look at these roofs admire their apparent flimsy lightness, and wonder at their duration. We have seen a hall of 57 feet wide, the roof which was in four divisions, like a kirb roof, and the trusses were about 16 feet asunder. They were single rafters, as in fig. 30. and their dimensions were only eight inches by six. The roof appeared perfectly sound, and had been standing ever since the year 1425.

Much of what has been said on this subject may be applied to the construction of wooden bridges and the centres for turning the arches of stone-bridges. But the farther discussion of this must be the employment of another article.

ROOFING, the materials of which the roof of a house is composed. See the foregoing article.

ROOK. See CORVUS ORNITHOLOGY *Index*.

Rooks are very destructive of corn, especially of wheat. They search out the lands where it is sown, and watching them more carefully than the owners, they perceive when the seed first begins to shoot up its blade; this is the time of their feeding on it. They will not be at the pains of searching for it at random in the sown land, for that is more trouble than so small a grain will requite them for: but as soon as these blades appear, they are by them directed, without loss of time or pains, to the places where the grains lie; and in three or four days time they will root up such vast quantities, that a good crop is often thus destroyed in embryo. After a few days the wheat continuing to grow, its blades appear green above ground; and then the time of danger from these birds is over; for then the seeds are so far robbed of their mealy matter, that they are of no value to that bird, and it will no longer give itself the trouble to destroy them.

Wheat that is sown so early as to shoot up its green blades before the harvest is all carried in, is in no danger from these birds; because while it is in a state worth their searching for, the scattered corn in the harvest fields is easier come at, and they feed wholly on this, neglecting the sown grain. But as this cannot always be done, the farmers, to drive away these ravenous and mischievous birds, dig holes in the ground and stick up the feathers of rooks in them, and hang up dead rooks on sticks in several parts of the fields: but all this is of very little use; for the living rooks will tear up the ground about the feathers, and under the dead ones,

mies, to steal the seeds. A much better way than either is to tear several rooks to pieces, and to scatter the pieces over the fields; but this lasts but a little while, for the kites and other birds of prey soon carry off the pieces and feed upon them. A gun is a good remedy while the person who has it is present; but as soon as he is gone, they will return with redoubled vigour to the field and tear up every thing before them.

The best remedy the farmer has is to watch well the time of the corn's being in the condition in which they feed upon it; and as this lasts only a few days, he should keep a boy in constant pay to watch the field from daybreak till the dusk of the evening. Every time they settle upon the ground to fly over it, the boy is to holloa, and throw up a dead rook into the air: this will always make them rise; and by degrees they will be so tired of this constant disturbance, that they will seek out other places of preying, and will leave the ground even before the time of the corn's being unfit for them. The reason of their rising at the tossing up of their dead fellow creature is, that they are a bird extremely apprehensive of danger, and they are always alarmed when one of their comrades rises. They take this for the rising of an out-bird, and all fly off at the signal.

ROOKE, Sir George, a gallant naval commander, born of an ancient and honourable family in Kent, in 1650. His merit raised him by regular steps to be vice-admiral of the blue: in which station he served in the battle of La Hogue, on the 22d of May 1692; when it was owing to his vigorous behaviour, that the last stroke was given on that important day, which threw the French entirely into confusion. But the next day he obtained still more glory; for he had orders to go into La Hogue, and burn the enemy's ships as they lay there. There were 13 large men of war, which had crowded as far up as possible; and the transports, tenders and ammunition ships, were disposed in such a manner that it was thought impossible to burn them. Besides, the French camp was in sight, with all the French and Irish troops that were to have been employed in the invasion of England; and several batteries were raised on the coast, well provided with heavy artillery. The vice-admiral made the necessary preparations for obeying his orders, but found it impossible to carry in the ships of his squadron: he therefore ordered his light frigates to ply in close to the shore; and having manned out all his boats, went himself to give directions for the attack, burnt that very night six three-deck-ships, and the next day six more, from 76 to 60 guns, together with most of the transports and ammunition vessels; and this under the fire of all the batteries just mentioned, and in sight of all the French and Irish troops: yet this bold action cost the lives of no more than ten men. The vice-admiral's behaviour on this occasion appeared so great to King William, that having no opportunity at that time of promoting him, he settled a pension of 1000l. per annum on him for life; and afterwards going to Portsmouth to view the fleet, went on board Mr Rooke's ship, dined with him, and then conferred on him the honour of knighthood, he having a little before made him vice-admiral of the red.

In consequence of other services he was in 1694 raised to the rank of admiral of the blue: towards the close of the next year, he was admiral of the white; and was also appointed admiral and commander in chief in the Mediterranean.

During King William's reign, Sir George was twice elected member for Portsmouth; and upon the accession of Queen Anne in 1702, he was constituted vice-admiral and lieutenant of the admiralty of England, as also lieutenant of the fleets and seas of this kingdom. Upon the declaration of war against France, he was ordered to command a fleet sent against Cadiz, the duke of Ormond having the command of the land forces. On his passage home, receiving an account that the galleons, under the escort of a strong French squadron, were got into the harbour of Vigo, he resolved to attack them; and on the 11th of October came before the harbour of Rondondello, where the French commander had neglected nothing necessary for putting the place in the best posture of defence. But notwithstanding this, a detachment of 15 English and 10 Dutch men of war, of the line of battle, with all the fire ships, were ordered in; the frigates and bomb-vessels followed; the great ships moved after them, and the army landed near Rondondello. The whole service was performed under Sir George's directions, with admirable conduct and bravery; for, in short, all the ships were destroyed or taken, prodigious damage done to the enemy, and vast wealth acquired by the allies. For this action Sir George received the thanks of the House of Commons, a day of thanksgiving was appointed both by the queen and the states-general, and Sir George was appointed to a seat in the privy-council; yet notwithstanding this, the House of Lords resolved to inquire into his conduct at Cadiz. But he so fully justified himself, that a vote was passed, approving his behaviour.

In the spring of the year 1704, Sir George commanded the ships of war which conveyed King Charles III. of Spain to Lisbon In July, he attacked Gibraltar; when, by the bravery of the English seamen, the place was taken on the 24th, though the town was extremely strong, well furnished with ammunition, and had 100 guns mounted, all facing the sea and the narrow passes to the land: an action which was conceived and executed in less than a week; though it has since endured sieges of many months continuance, and more than once baffled the united forces of France and Spain. This brave officer being at last obliged, by the prevalence of party-spirit, to quit the service of his country, retired to his seat in Kent; where he spent the remainder of his days as a private gentleman.

He was thrice married; and by his second lady Mrs Luttrel left one son. He died January 24. 1708-9, in his 58th year, and was buried in Canterbury cathedral, where a monument is erected to his memory. In his private life he was a good husband and a kind master, lived hospitably towards his neighbours, and left behind him a moderate fortune; so moderate that when he came to make his will, it surprised those who were present: but Sir George assigned the reason in a few words, "I do not leave much (said he), but what I leave was honestly gotten; it never cost a sailor a tear, or the nation a farthing."

ROOM, chamber, parlour, or other apartment in a house. See Architecture and Ventilation.

ROOT, among botanists, denotes that part of a plant

Root. || Rope.

plant which imbibes the nutritions juices of the earth, and transmits them to the other parts. See PLANT and RADIX.

Colour extracted from ROOTS. See COLOUR *Making*, N° 41.

ROOT, in *Algebra* and *Arithmetic*, denotes any number which, multiplied by itself once or oftener, produces any other number; and is called the *square, cube, biquadrate*, &c. *root*, according to the number of multiplications. Thus, 2 is the square of 4; the cube-root of 8; the biquadrate root of 16, &c.

Root of an equation, denotes the value of the unknown quantity in an equation, which is such a quantity, as being substituted instead of that unknown letter, into the equation, shall make all the terms to vanish, or both sides equal to each other. Thus, of the equation $3^x + 5 = 14$, the root or value of x is 3, because substituting 3 for x makes it become $9 + 5 = 14$.

Roots, real and imaginary. The odd roots, as the 3d, 5th, 7th, &c. of all real quantities, whether positive or negative, are real and are respectively positive or negative. So the cube root of a^3 is a, and of $-a^3$ is $-a$. But the even roots, as the 2d, 4th, 6th, &c. are only real when the quantity is positive, being imaginary or impossible when the quantity is negative. So the square root of a^2 is a, which is real; but the square root of $-a^2$, that is $\sqrt{-a^2}$, is imaginary or impossible, because there is no quantity, neither $+a$ nor $-a$, which by squaring will make the given negative square $-a^2$.

ROPE, is a word too familiar to need a definition; and we need say no more than that it is only applied to a considerable collection of twisted fibres. Smaller bands are called lines, strings, cords; and it is not applied with great propriety even to those, unless they are composed of smaller things of the same kind twisted together. Two hay bands twisted together would be called a *rope*. All the different kinds of this manufacture, from a fishing-line or whip-cord to the cable of a first-rate ship of war, go by the general name of CORDAGE.

Ropes are made of every substance that is sufficiently fibrous, flexible, and tenacious, but chiefly of the barks of plants. The Chinese and other orientals even make them of the ligneous parts of several plants, such as certain bamboos and reeds, the stems of the aloes, the fibrous covering of the cocoa nut, the filament of the cotton pod, and the leaves of some grasses such as the sparte (*Lygeum*, Linn.). The aloe (*Agave*, Linn.) and the sparte exceed all others in strength. But the barks of plants are the most productive of fibrous matter fit for this manufacture. Those of the linden tree (*Tilia*), of the willow, the bramble, the nettle, are frequently used: but hemp and flax are of all others the best; and of these the hemp is preferred, and employed in all cordage exceeding the size of a line, and even in many of this denomination.

Hemp is very various in its useful qualities. These are great strength, and the length and fineness of the fibre. Being a plant of very greedy growth, it sucks up much of the unaltered juices of the soil, and therefore differs greatly according to its soil, climate, and culture. The best in Europe comes to us through Riga, to which port it is brought from very distant places to the southward. It is known by the name of *Riga rein* (that is, clean) hemp. Its fibre is not the longest (at least in the dressed state in which we get it) of all others, but it is the finest, most flexible, and strongest. The next to this is supposed to be the Petersburgh braak hemp. Other hemps are esteemed nearly in the following order:—Riga outshot, Petersburgh outshot, hemp from Konigsburg, Archangel, Sweden, Memel. *Chucking* is a name given to a hemp that comes from various places, long in the fibre, but coarse and harsh, and its strength is inferior to hemps which one would think weaker. Its texture is such, that it does not admit splitting with the hatchet so as to be more completely dressed. It is therefore kept in its coarse form, and used for inferior cordage. It is, however, a good and strong hemp, but will not make fine work. There are doubtless many good hemps in the southern parts of Europe, but little of them is brought to our market. Codilla, half clean, &c. are portions of the above-mentioned hemps, separated by the dressing, and may be considered as broken fibres of those hemps.

Rope. Rope-making.

Only the first qualities are manufactured for the rigging of the royal navy and for the ships of the East India Company.

1 Importance of the art of rope-making.

ROPE-MAKING is an art of very great importance, and there are few that better deserve the attention of the intelligent observer. Hardly any art can be carried on without the assistance of the rope-maker. Cordage makes the very sinews and muscles of a ship; and every improvement which can be made in its preparation, either in respect to strength or pliableness, must be of immense service to the mariner, and to the commerce and the defence of nations.

We shall give a very short account of the manufacture, which will not indeed fully instruct the artificers, but will give such a view of the process as shall enable the reader to judge, from principles, of the propriety of the different parts of the manipulation, and perceive its defects, and the means for removing them.

2 The aim of which is to unite the strength of numerous fibres.

The aim of the rope-maker is to unite the strength of a great number of fibres. This would be done in the completest manner by laying the fibres parallel to each other, and fastening the bundle at the two ends; but this would be of very limited use, because the fibres are short, not exceeding three feet and a half at an average. They must therefore be entangled together in such a manner that the strength of a fibre shall not be able to draw it out from among the rest of the bundle. This is done by twisting or twining them together, which causes them mutually to compress each other. When the fibres are so disposed in a long skain, that their ends succeed each other along its length, without many of them meeting in one place, and this skain is twisted round and round, we may cause them to compress each other to any degree we please, and the friction on a fibre which we attempt to pull out may be more than its cohesion can overcome. It will therefore break. Consequently, if we pull at this twisted skain, we will not separate it by drawing one parcel out from among the rest, but the whole fibres will break; and if the distribution of the fibres has been very equable, the skain will be nearly of the same strength in every part. If there is any part where many ends of fibres meet, the skain will break in that part.

We know very well that we can twist a skain of fibres so very hard, that it will break with any attempt

to

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to twist it harder. In this state all the fibres are already strained to the utmost of their strength. Such a skain of fibres can have no strength. It cannot carry a weight, because each fibre is already strained in the same manner as if loaded with as much weight as it is able to bear. What we have said of this extreme case is true in a certain extent of every degree of twist that we give the fibres. Whatever force is actually exerted by a twisted fibre, in order that it may sufficiently compress the rest to hinder them from being drawn out, must be considered as a weight hanging on that fibre, and must be deduced from its absolute strength of cohesion, before we can estimate the strength of the skain. The strength of the skain is the remainder of the absolute strength of the fibres, after we have deduced the force employed in twisting them together.

3 These fibres may be so much twisted as to break with the least additional twist.

4 Practical inference.

From this observation may be deduced a fundamental principle in rope-making, that all twisting, beyond what is necessary for preventing the fibres from being drawn out without breaking, diminishes the strength of the cordage, and should be avoided when in our power. It is of importance to keep this in mind.

5 Method to be observed in twisting the fibres.

It is necessary then to twist the fibres of hemp together, in order to make a rope; but we should make a very bad rope if we contented ourselves with twisting together a bunch of hemp sufficiently large to withstand the strains to which the rope is to be exposed. As soon as we let it go out of our hands, it would untwist itself, and be again a loose bundle of hemp; for the fibres are strained, and they are in a considerable degree elastic; they contract again, and thus untwist the rope or skain. It is necessary to continue the twist in such a manner, that the tendency to untwist in one part may act against the same tendency in another and balance it. The process, therefore, of rope-making is more complicated.

6 Spinning of rope-yarns.

The first part of this process is SPINNING of ROPE-YARNS. This is done in various ways, and with different machinery, according to the nature of the intended cordage. We shall confine our description to the manufacture of the larger kinds, such as are used for the standing and running rigging of ships.

7 Description of the apparatus and manner of using it.

Plate CCCCLXV. fig. 1.

An alley or walk is inclosed for the purpose, about 200 fathoms long, and of a breadth suited to the extent of the manufacture. It is sometimes covered above. At the upper end of this ROPE-WALK is set up the spinning-wheel, of a form resembling that in fig. 1. The band of this wheel goes over several rollers called WHIRLS, turning on pivots in brass holes. The pivots at one end come through the frame, and terminate in little hooks. The wheel being turned by a winch, gives motion in one direction to all those whirls. The spinner has a bundle of dressed hemp round his waist, with the two ends meeting before him. The hemp is laid in this bundle in the same way that women spread the flax on the distaff. There is great variety in this; but the general aim is to lay the fibres in such a manner, that as long as the bundle lasts there may be an equal number of the ends at the extremity, and that a fibre may never offer itself double or in a bight. The spinner draws out a proper number of fibres, twists them with his fingers, and having got a sufficient length detached, he fixes it to the hook of a whirl. The wheel is now turned, and the skain is twisted, becoming what is called a ROPE-YARN, and the spinner walks backwards DOWN the rope-walk. The part already twisted draws along with it more fibres out of the bundle. The spinner aids this with his fingers, supplying hemp in due proportion as he walks away from the wheel, and taking care that the fibres come in equally from both sides of his bundle, and that they enter always with their ends, and not by the middle, which would double them. He should also endeavour to enter every fibre at the heart of the yarn. This will cause all the fibres to mix equally in making it up, and will make the work smooth, because one end of each fibre is by this means buried among the rest, and the other end only lies outward; and this, in passing through the grasp of the spinner, who presses it tight with his thumb and palm, is also made to lie smooth. The greatest fault that can be committed in spinning is to allow a small thread to be twisted off from one side of the hemp, and then to cover this with hemp supplied from the other side: for it is evident that the fibres of the central thread make very long spirals, and the skin of fibres which covers them must be much more oblique. This covering has but little connection with what is below it, and will easily be detached. But even while it remains, the yarn cannot be strong; for, on pulling it, the middle part, which lies the straightest, must bear all the strain, while the outer fibres, that are lying obliquely, are only drawn a little more parallel to the axis. This defect will always happen if the hemp be supplied in a considerable body to a yarn that is then spinning small. Into whatever part of the yarn it is made to enter, it becomes a sort of loosely connected wrapper. Such a yarn, when untwisted a little, will have the appearance of fig. 2. while a good yarn looks like fig. 3. A good spinner therefore endeavours always to supply the hemp in the form of a thin flat skain with his left hand, while his right is employed in grasping firmly the yarn that is twining off, and in holding it tight from the whirl, that it may not run into loops or KINKS.

Fig. 2 Fig. 3.

It is evident, that both the arrangement of the fibres and the degree of twisting depend on the skill and dexterity of the spinner, and that he must be instructed, not by a book, but by a master. The degree of twist depends on the rate of the wheel's motion, combined with the retrograde walk of the spinner.

We may suppose him arrived at the *lower* end of the walk, or as far as is necessary for the intended length of his yarn. He calls out, and another spinner immediately detaches the yarn from the hook of the whirl, gives it to another, who carries it aside to the reel, and this second spinner attaches his own hemp to the whirl hook. In the mean time, the first spinner keeps fast hold of the end of his yarn; for the hemp, being dry, is very elastic, and if he were to let it go out of his hand it would instantly untwist, and become little better than loose hemp. He waits, therefore, till he sees the reeler begin to turn the reel, and he goes slowly up the walk, keeping the yarn of an equal tightness all the way, till he arrives at the wheel, where he waits with his yarn in hand till another spinner has finished his yarn. The first spinner takes it off the whirl hook, joins it to his own, that it may follow it on the reel, and begins a new yarn.

8 Different kinds of rope-yarn.

Rope-yarns, for the greatest part of the large rigging, are from a quarter of an inch to somewhat more than a third of an inch in circumference, or of such a size that 160 fathoms weigh from three and a half to four

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four pounds when white The different sizes of yarns are named from the number of them contained in a strand of a rope of three inches in circumference. Few are so coarse that 16 will make a strand of British cordage; 18 is not unfrequent for cable yarns, or yarns spun from harsh and coarse hemp; 25 is, we believe, the finest size which is worked up for the rigging of a ship. Much finer are indeed spun for sounding lines, fishing lines, and many other marine uses, and for the other demands of society. Ten good spinners will work up above 600 weight of hemp in a day; but this depends on the weather. In very dry weather the hemp is very elastic, and requires great attention to make smooth work. In the warmer climates, the spinner is permitted to moisten the rag with which he grasps the yarn in his right hand for each yarn. No work can be done in an open spinning walk in rainy weather, because the yarns would not take on the tar, if immediately tarred, and would rot if kept on the reel for a long time.

9 Method of converting the rope-yarns into ropes, cords, or lines.

The second part of the process is the conversion of the yarns into what may with propriety be called a rope, cord, or line. That we may have a clear conception of the principle which regulates this part of the process, we shall begin with the simplest possible case, the union of two yarns into one line. This is not a very usual fabric for rigging, but we select it for its simplicity.

When hemp has been split into very fine fibres by the hatchel, it becomes exceedingly soft and pliant, and after it has lain for some time in the form of fine yarn, it may be unreeled and thrown loose, without losing much of its twist. Two such yarns may be put on the whirl of a spinning wheel, and thrown, like flaxen yarn, so as to make sewing thread. It is in this way, indeed, that the sailmaker's sewing thread is manufactured; and when it has been kept on the reel, or on balls or bobbins, for some time, it retains its twist as well as its uses require. But this is by no means the case with yarns spun for great cordage. The hemp is so elastic, the number of fibres twisted together is so great, and the diameter of the yarn (which is a sort of lever on which the elasticity of the fibre exerts itself) is so considerable, that no keeping will make the fibres retain this constrained position. The end of a rope yarn being thrown loose, it will immediately untwist, and this with considerable force and speed. It would, therefore, be a fruitless attempt to twist two such yarns together; yet the ingenuity of man has contrived to make use of this very tendency to untwist not only to counteract itself, but even to produce another and a permanent twist, which requires force to undo it, and which will recover itself when this force is removed. Every person must recollect that, when he has twisted a packthread very hard with his fingers between his two hands, if he slackens the thread by bringing his hands nearer together, the packthread will immediately curl up, running into loops or kinks, and will even twist itself into a neat and firm cord. Familiar as this fact is, it would puzzle any person not accustomed to these subjects to explain it with distinctness. We shall consider it with some care, not as a piece of mechanical curiosity, but as a fundamental principle in this manufacture, which will give us clear instructions to direct us in the most delicate part of the whole process. And we beg the attention of the artists themselves to a thing which they seem to have overlooked.

Let $m\,d$, $n\,d$ (fig. 4.) be two yarns fixed to one point d, and let both of them be twisted, each round its own axis, in the direction $a\,b\,c$, which will cause the fibres to lie in a screw form, as represented in the figure. If the end d of the yarn $m\,d$ were at liberty to turn round the point d, it would turn accordingly, as often as the end m is turned round, and the yarn would acquire no twist; but being attached to some solid body, it cannot turn without turning this body. It has, however, this tendency, and the body must be forcibly prevented from turning. If it be held fast for a time, and then let go, it will be turned round, and it will not stop till it has turned as often as the end m has been twisted, and now all the twist will be undone. Thus it is the tendency of the yarn $m\,d$ to untwist at the end d (because it is kept fast at m), which produces this motion of the body attached to it at d. What we have said of the yarn $m\,d$ is equally true of the yarn $n\,d$. Both tend to turn, and will turn, the body attached at d round the common axis, in the same direction in which they are twisted. Let fig. 5. be supposed a cross section of the two yarns touching each other at d, and there glued to a board. The fibres of each pull obliquely, that is, they both pull away from the board, and pull laterally. The direction of this lateral pull of the fibres in the circumference of each yarn is represented by the little darts drawn round the circumferences. These actions directly oppose and balance each other at d; but in the semicircles $o\,e\,t$, $t\,f\,o$, they evidently conspire to turn the board round in the same direction. The same may be said of the outer halves of any circles described within these. In the inner halves of these inner circles the actions of some fibres oppose each other; but in every circle there are many more conspiring actions than opposing ones, and the conspiring actions exert themselves by longer levers, so that their joint momentum greatly exceeds that of the opposing forces. It may be demonstrated, that if all the fibres exert equal forces, the force which tends to turn the board round the common axis is two-thirds of the force employed to twist both the yarns.

Fig. 4.

Fig. 5.

Suppose then that the solid body to which the yarns are attached is at liberty to turn round the common axis; it cannot do this without carrying the yarns round with it. They must, therefore, turn round each other, and thus compose a rope or cord $k\,l$, having its component yarns (now called *strands*) lying in a direction opposite to that of the fibres in each strand. The rope will take this twist, while each of the strands is really untwisting, and the motion will not stop till all is again in equilibrio. If the yarns had no diameter and no rigidity, their elastic contraction would not be balanced till the cord had made half the number of turns which had been given to that part of the yarn which is thus doubled up. But, as the yarns have a sensible diameter, the same ultimate contraction of the fibres will be expended by the twisting of the cord in fewer turns, even if the yarns had no rigidity. The turns necessary for this purpose will be so much fewer, in proportion to the twist of the yarns, as the fibres of the yarn lie more obliquely, that is, as the yarns are more twisted. But further, this contractile force has to overcome the rigidity

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rigidity or stiffness of the yarns. This requires force merely to *bend* it into the screw form; and therefore, when all is again at rest, the fibres are in a state of strain, and the rope is not so much closed by doubling as it would have been had the yarns been softer. If any thing can be done to it in this state which will soften the yarns, it will twist itself more up. It has therefore a *tendency* to twist more up; and if this be aided by an external force which will bend the strands, this will happen. Beating it with a soft mallet will have this effect; or, if it be forcibly twisted till the fibres are allowed to contract as much as they would have done had the yarn been perfectly soft, the cord will keep this twist without any effort; and this must be considered as its most perfect state, in relation to the degree of twist originally given to the yarns. It will have no tendency to run into kinks, which is both troublesome and dangerous, and the fibres will not be exerting any useless effort.

To attain this state should therefore be the aim of every part of this second process; and this principle should be kept in view through the whole of it.

The component parts of a rope are called strands, as has been already observed; and the operation of uniting them with a permanent twist is called *laying* or *closing*, the latter term being chiefly appropriated to cables and other very large cordage.

10 Description of the machinery, and mode of using it.

Lines and cordage less than 1½ inches circumference are laid at the spinning-wheel. The workman fastens the ends of each of two or three yarns to separate whirl-hooks. The remote ends are united in a knot. This is put on one of the hooks of a swivel called the *loper*, represented in fig. 6. and care is taken that the yarns are of equal lengths and twist. A piece of soft cord is put on the other hook of the loper; and, being put over a pulley several feet from the ground, a weight is hung on it, which stretches the yarn. When the workman sees that they are equally stretched, he orders the wheel to be turned in the same direction as when twining the yarns. This would twine them harder; but the swivel of the loper gives way to the strain, and the yarns immediately twist around each other, and form a line or cord. In doing this the yarns lose their twist. This is restored by the wheel. But this simple operation would make a very bad line, which would be slack, and would not hold its twist; for, by the turning of the loper, the strands twist immediately together, to a great distance from the loper. By this turning of the loper the yarns are untwisted. The wheel restores their twist only to that part of the yarns that remain separate from the others, but cannot do it in that part where they are already twined round each other, because their mutual pressure prevents the twist from advancing. It is, therefore, necessary to retard this tendency to twine, by keeping the yarns apart. This is done by a little tool called the top, represented in fig. 7.

Fig. 6.

Fig. 7.

It is a truncated cone, having three or more notches along its sides, and a handle called the staff. This is put between the strands, the small end next the loper, and it is pressed gently into the angle formed by the yarns which lie in the notches. The wheel being now turned, the yarns are more twisted, or *hardened up*, and their pressure on the top gives it a strong tendency to come out of the angle, and also to turn round. The workman does not allow this till he thinks the yarns sufficiently hardened. Then he yields to the pressure, and the top comes away from the swivel, which immediately turns round, and the line begins to lay.—Gradually yielding to this pressure, the workman slowly comes up towards the wheel, and the laying goes on, till the top is at last close to the wheel, and the work is done. In the mean time, the yarns are shortened, both by the twining of each and the laying of the cord. The weight, therefore, gradually rises. The use of this weight is evidently to oblige the yarn to take a proper degree of twist, and not run into kinks.

A cord or line made in this way has always some tendency to twist a little more. However little friction there may be in the loper, there is some, so that the turns which the cord has made in the laying are not enough to balance completely the elasticity of the yarns; and the weight being appended causes the strands to be more nearly in the direction of the axis, in the same manner as it would stretch and untwist a little any rope to which it is hung. On the whole, however, the twist of a laid line is permanent, and not like that upon thread doubled or thrown in a mill, which remains only in consequence of the great softness and flexibility of the yarn.

11 Large or hawser-laid cordage is differently formed.

The process for laying or closing large cordage is considerably different from this. The strands of which the rope is composed consist of many yarns, and require a considerable degree of hardening. This cannot be done by a whirl driven by a wheel band; it requires the power of a crank turned by the hand. The strands, when properly hardened, become very stiff, and when bent round the top are not able to transmit force enough for laying the heavy and unpliant rope which forms beyond it. The elastic twist of the hardened strands must, therefore, be assisted by an external force. All this requires a different machinery and a different process.

12 Machinery and mode of using it in this case.

At the upper end of the walk is fixed up the *tackle-board*, fig. 8. This consists of a strong oaken plank called a *breast-board*, having three or more holes in it, such as A, B, C, fitted with brass or iron plates. Into these are put iron cranks, called heavers, which have hooks, or forelocks, and keys, on the ends of their spindles. They are placed at such a distance from each other, that the workmen do not interfere with each other while turning them round. This breast-board is fixed to the top of strong posts well secured by struts or braces facing the lower end of the walk. At the lower end is another breast-board fixed to the upright posts of a sledge, which may be loaded with stones or other weights. Similar cranks are placed in the holes of this breast-board. The whole goes by the name of the *sledge*; (see fig. 9.). The top necessary for closing large cordage is too heavy to be held in the hand. It therefore has a long staff, which has a truck on the end. This rests on the ground; but even this is not enough in laying great cables. The top must be supported on a carriage, as shown in fig. 10. where it must lie very steady, and need no attendance, because the master workman has sufficient employment in attending to the manner in which the strands close behind the top, and in helping them by various methods. The top is, therefore, fixed to the carriage by lashing its staff to the two upright posts. A piece of soft rope, or strap, is attached to the handle of the top by the middle, and its two ends are brought back and wrapped several times tight round the rope, in the direction of its twist, and bound

Fig. 8.

Fig. 9.

Fig. 10.

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bound down. This is shown at W, and it greatly assists the laying of the rope by its friction. This both keeps the top from flying too far from the point of union of the strands, and brings the strands more regularly into their places.

The first operation is *warping* the yarns. At each end of the walk are frames called warping frames, which carry a great number of reels or winches filled with rope-yarn. The foreman of the walk takes off a yarn end from each, till he has made up the number necessary for his rope or strand, and bringing the ends together, he passes the whole through an iron ring fixed to the top of a stake driven into the ground, and draws them through: then a knot is tied on the end of the bundle, and a workman pulls it through this ring till the intended length is drawn off the reels. The end is made fast at the bottom of the walk, or at the sledge, and the foreman comes back along the skain of yarns, to see that none are hanging slacker than the rest. He takes up in his hand such as are slack, and draws them tight, keeping them so till he reaches the upper end, where he cuts the yarns to a length, again adjusts their tightness, and joins them all together in a knot, to which he fixes the hook of a tackle, the other block of which is fixed to a firm post, called the *warping-post*. The skain is well stretched by this tackle, and then separated into its different strands. Each of these is knotted apart at both ends. The knots at their upper ends are made fast to the hooks of the cranks in the tackle-board, and those at their lower ends are fastened to the cranks in the sledge. The sledge itself is kept in its place by a tackle, by which the strands are again stretched in their places, and every thing adjusted, so that the sledge stands square on the walk, and then a proper weight is laid on it. The tackle is now cast off and the cranks are turned at both ends, in the contrary direction to the twist of the yarns. (In some kinds of cordage the cranks are turned the same way with the spinning twist). By this the strands are twisted and hardened up; and as they contract by this operation, the sledge is dragged up the walk. When the foreman thinks the strands sufficiently hardened, which he estimates by the motion of the sledge, he orders the heavers at the cranks to stop. The middle strand at the sledge is taken off from the crank. This crank is taken out, and a stronger one put in its place at D, fig. 9. The other strands are taken off from their cranks, and all are joined on the hook which is now in the middle hole. The top is then placed between the strands, and, being pressed home to the point of their union, the carriage is placed under it, and it is firmly fixed down. Some weight is taken off the sledge. The heavers now begin to turn at both ends. Those at the tackle-board continue to turn as they did before; but the heavers at the sledge turn in the opposite direction to the former motion, so that the cranks at both ends are now turning one way. By the motion of the sledge crank the top is forced away from the knot, and the rope begins to close. The heaving at the upper end restores to the strands the twist which they are constantly losing by the laying of the rope. The workmen judge of this by making a chalk mark on intermediate points of the strands, where they lie on the stakes which are set up along the walk for their support. If the twist of the strands is diminished by the motion of closing, they will lengthen, and the chalk mark will move away from the tackle-board: but if the twist increases by turning the cranks at the tackle-board, the strands will shorten, and the mark will come nearer to it.

As the closing of the rope advances, the whole shortens, and the sledge is dragged up the walk. The top moves faster, and at last reaches the upper end of the walk, the rope being now laid. In the mean time the sledge has moved several fathoms from the place where it was when the laying began.

These motions of the sledge and top must be exactly adjusted to each other. The rope must be of a certain length. Therefore the sledge must stop at a certain place. At that moment the rope should be laid; that is, the top should be at the tackle-board. In this consists the address of the foreman. He has his attention directed both ways. He looks at the strands, and when he sees any of them hanging slacker between the stakes than the others, he calls to the heavers at the tackle-board to heave more upon that strand. He finds it more difficult to regulate the motion of the top. It requires a considerable force to keep it in the angle of the strands, and it is always disposed to start forward. To prevent or check this, some straps of soft rope are brought round the staff of the top, and then wrapped several times round the rope behind the top, and kept firmly down by a lanyard or bandage, as is shown in the figure. This both holds back the top and greatly assists the laying of the rope, causing the strands to fall into their places, and keep close to each other. This is sometimes very difficult, especially in ropes composed of more than three strands. It will greatly improve the laying the rope, if the top have a sharp, smooth tapering pin of hard wood, pointed at the end, projecting so far from the middle of its smaller end that it gets in between the strands which are closing. This supports them, and makes their closing more gradual and regular. The top, its notches, the pin, and the warp or strap, which is lapped round the rope, are all smeared with grease or soap to assist the closing. The foreman judges of the progress of closing chiefly by his acquaintance with the walk, knowing that when the sledge is abreast of a certain stake the top should be abreast of a certain other stake. When he finds the top too far down the walk, he slackens the motion at the tackle-board, and makes the men turn briskly at the sledge. By this the top is forced up the walk, and the laying of the rope accelerates, while the sledge remains in the same place, because the strands are losing their twist, and are lengthening, while the closed rope is shortening. When, on the other hand, he thinks the top too far advanced, and fears that it will be at the head of the walk before the sledge has got to its proper place, he makes the men heave briskly on the strands, and the heavers at the sledge crank to work softly.—This quickens the motion of the sledge by shortening the strands; and by thus compensating what has been overdone, the sledge and top come to their places at once, and the work appears to answer the intention.

13 Some improprieties in this process pointed out, and

But this is a bad manner of proceeding. It is evident, that if the strands be kept to one degree of hardness throughout, and the heaving at the sledge be uniformly continued, the rope will be uniform. It may be a little longer or shorter than was intended, and the laying may be too hard in proportion to the twist of the

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the strands, in which case it will not keep it; or it may be too slack, and the rope will tend to twist more. Either of these faults is discoverable by slackening the rope before it come off the hooks, and it may then be corrected. But if the error in one place be compensated by that in another, this will not be easily seen before taking off the hooks; and if it is a large and stiff rope, it will hardly ever come to an equable state in its different parts, but will be apt to run into loops during service.

It is, therefore, of importance to preserve the uniformity throughout the whole. M. Du Hamel, in his great work on rope-making, proposes a method which is very exact, but requires an apparatus which is cumbersome, and which would be much in the way of the workmen. We think that the following method would be extremely easy, embarrass no one, and is perfectly exact. Having determined the proportion between the velocity of the top and sledge, let the diameter of the truck of the top carriage be to that of another truck fixed to the sledge, in the proportion of the velocity of the top to that of the sledge. Let a mark be made on the rim of each; let the man at the sledge make a signal every time that the mark on the sledge truck is uppermost. The mark on the carriage truck should be uppermost at the same instant; and in this way the foreman knows the state of the rope at all times without quitting his station. Thus, in making a cable of 120 fathoms, it is usual to warp the yarns 180 fathoms, and to harden them up to 140 before closing. Therefore, in the closing, the top must have 140 fathoms, and the sledge only 20. The diameter of the carriage truck should therefore be seven times the diameter of the sledge truck.

14 another method proposed, &c.

We have hitherto proceeded on the supposition, that the twist produced by the cranks is propagated freely along the strands and along the closing rope. But this is not the case. It is almost unavoidable that the twist is greater in the neighbourhood of the crank which produces it. The strands are frequently of very considerable weight, and lie heavy on the stakes. Force is therefore necessary to overcome their friction, and it is only the overplus that is propagated beyond the stake. It is proper to lift them up from time to time, and let them fall down again, as the sawer does with his marking line. This helps the twist to run along the strand. But this is not enough for the closed rope, which is of much greater weight, and much stiffer.—When the top approaches the tackle-board, the heaving at the sledge could not cause the strands immediately behind the top to close well, without having previously produced an extravagant degree of twist in the intermediate rope. The effort of the crank must therefore be assisted by men stationed along the rope, each furnished with a tool called a *woolder*. This is a stout oak stick about three feet long, having a strap of soft rope-yarn or cordage fastened on its middle or end. The strap is wrapped round the laid rope, and the workman works with the stick as a lever, twisting the rope round in the direction of the crank's motion. The woolders should keep their eye on the men at the crank, and make their motion correspond with his. Thus they send forward the twist produced by the crank, without either increasing or diminishing it, in that part of the rope which lies between them and the sledge.

It is usual before taking the rope from the hooks to heave a while at the sledge end, in order to harden the rope a little. They do this so as to take it up about $\frac{1}{60}$. The propriety or impropriety of this practice depends entirely on the proportion which has been previously observed between the hardening of the strands and the twisting of the closing rope. It is, in all cases, better to adjust these precisely, and then nothing remains to be done when the top has arrived at the upper end of the walk. The making of two strand and three strand line pointed out the principle which should be attended to in this case; namely, that the twist given to the rope in laying should be precisely what a perfectly soft rope would give to itself. We do not see any reason for thinking that the proportion between the number of turns given to the strands and the number of turns given to the laid line by its own elasticity, will vary by any difference of diameter. We would therefore recommend to the artists to settle this proportion by experiment. The line should be made of the finest, smallest, and softest threads or yarn. These should be made into strands, and the strands should be hardened up in the direction contrary to the spinning twist. The rope should then be laid, hanging perpendicularly, with a small weight on the top to keep it down, and a very small weight at the end of the rope. The number of turns given to the strands should be carefully noticed, and the number of turns which the rope takes of itself in closing. The weight should then be taken off, and the rope will make a few turns more. This whole number will never exceed what is necessary for the equilibrium; and we imagine it will not fall much short of it. We are clearly of opinion that an exact adjustment of this particular will tend greatly to improve the art of rope-making, and that experiments on good principles for ascertaining this proportion would be highly valuable, because there is no point about which the artists themselves differ more in their opinions and practice.

15 Mode of making shroud-laid cordage of four strands.

The cordage, of which we have been describing the manufacture, is said to be HAWSER LAID. It is not uncommon to make ropes of four strands. These are used for shrouds, and this cordage is therefore called SHROUD-LAID cordage. A rope of the same size and weight must be smoother when it has four strands, because the strands are smaller: but it is more difficult to lay close. When three cylindrical strands are simply laid together, they leave a vacuity at the axis amounting to $\frac{1}{28}$ of the section of a strand. This is to be filled up by compressing the strands by twisting them. Each must fill up $\frac{1}{3}$ of it by changing its shape; and $\frac{1}{6}$ of this change is made on each side of the strand. The greatest change of shape therefore made on any one part of a strand amounts only to $\frac{1}{168}$ of the section of the strand. The vacuity between four cylinders is $\frac{3}{11}$ of one of them. This being divided into eight parts, is $\frac{1}{29}$ of a strand, and is the greatest compression which any part of it has to undergo. This is nearly five times greater than the former, and must be more difficult to produce. Indeed it may be seen by looking at the figures 11. and 12. that it will be easier to compress a strand into the obtuse angle of 120 degrees than into the right angle of 90; and without reasoning more about the matter, it appears that the difficulty will increase

Fig. 11. and 12.

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crease with the number of strands. Six strands must touch each other, and form an arch leaving a hollow in the middle, into which one of the strands will slip, and then the rest will not completely surround it. Such a rope would be uneven on the surface. It would be weak; because the central strand would be slack in comparison of the rest, and would not be exerting its whole force when they are just ready to break. We see then that a four strand rope must be more difficult to lay well than a hawser-laid rope. With care, however, they may be laid well and close, and are much used in the royal navy.

16 and with a heart in the middle.

Ropes are made of four strands, with a heart or strand in the middle. This gives no additional strength, for the reason just now given. Its only use is to make the work better and more easy, and to support all the strands at the same distance from the axis of the rope. This is of great consequence; because when they are at unequal distances from the axis, some must be more sloping than others, and they will not resist alike. This heart is made of inferior stuff, slack laid, and of a size just equal to the space it is to fill. When a rope of this fabric has been long used and become unserviceable, and is opened out, the heart is always found cut and chaffed to pieces, like very short oakum. This happens as follows: When the rope is violently strained, it stretches greatly; because the strands surround the axis obliquely, and the strain draws them into a position more parallel to the axis. But the heart has not the obliquity of parts, and cannot stretch so much; at the same time its yarns are firmly grasped by the hard strands which surround them; they must therefore be torn into short pieces.

The process for laying a rope with a heart is not very different from that already described. The top has a hole pierced through it, in the direction of the axis. The skain or strand intended for the heart passes through this hole, and is stretched along the walk. A boy attends it, holding it tight as it is taken into the closing rope. But a little attention to what has been said will show this method to be defective. The wick will have no more turns than the laid rope; and as it lies in the very axis, its yarns will be much straighter than the strands. Therefore when the rope is strained and stretched, the wick cannot stretch as much as the laid strands; and being firmly grasped by them, it must break into short pieces, and the strands, having lost their support in those places, will sink in, and the cordage grow loose. We should endeavour to enable all to stretch alike. The wick therefore should be twisted in the same manner as the strands, perhaps even a little more. It will thus communicate part of its strength to the rope. Indeed it will not be so uniformly solid, and may chance to have three spiral vacuities. But that this does no harm, is quite evident from the superior strength of cable-laid cordage, to be described presently, which has the same vacuities. In this way are the main and fore stays made for ships of the line. They are thought stronger than hawser-laid ropes; but unfit for running rigging, because their strands are apt to get out of their places when the rope is drawn into loops. It is also thought that the heart retains water, rots, and communicates its putrefaction to the surrounding strands.

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17 Recapitulation.

Such is the general and essential process of rope-making. The fibres of hemp are twisted into yarns, that they may make a line of any length, and stick among each other with a force equal to their own cohesion. The yarns are made into cords of permanent twist by laying them; and, that we may have a rope of any degree of strength, many yarns are united in one strand, for the same reason that many fibres were united in one yarn; and in the course of this process it is in our power to give the rope a solidity and hardness which makes it less penetrable by water, which would rot it in a short while. Some of these purposes are inconsistent with others: and the skill of a rope-maker lies in making the best compensation; so that the rope may on the whole be the best in point of strength, pliancy, and duration, that the quantity of hemp in it can produce.

18 Mode of making cable-laid cordage.

There is another species of cordage in very general use. A rope of two or more strands may be used as a strand, in order to compose a still larger rope; and in this manner are cables and other ground tackle commonly made; for this reason such cordage is called CABLE-LAID cordage.

The process of cable-laying hardly differs from that of hawser-laying. Three ropes, in their state of permanent twist, may be twisted together; but they will not hold it, like fine thread, because they are stiff and elastic. They must therefore be treated like strands for a hawser. We must give them an *additional* twist, which will dispose them to lay or close themselves; and this disposition must be aided by the workmen at the sledge. We say the twist should be an addition to their twist as a rope. A twist in the opposite direction will indeed give them a disposition to close behind the top; but this will be very small, and the ropes (now strands) will be exceedingly open, and will become more open in laying. The twist is therefore given in the direction of their twist as a rope, or opposite to that of the primary strands, of which the ropes are composed. These primary strands are therefore partly untwisted in cable-laying a rope, in the same manner as the yarns are untwisted in the usual process of rope-making.

We need not insist farther on this part of the manufacture. The reader must be sensible that the hawsers intended for strands of a cable must not be so much twisted as those intended to remain hawsers; for the twist given to a finished hawser is presumed to be that which renders it most perfect, and it must be injured by any addition. The precise proportion, and the distribution of the working up between the hardening of the strands and closing the cable, is a subject about which the artists are no better agreed than in the case of hawser-laid cordage. We did not enter on this subject while describing the process, because the introduction of reasonings and principles would have hurt the simplicity of the description. The reader being now acquainted with the different parts of the manipulation, and knowing what can be done on any occasion, will now be able to judge of the propriety of the whole, when he learns the principle on which the strength of a rope depends.

19 Mode of estimating the strength of ropes.

We have already said, that a rope-yarn should be twisted till a fibre will break rather than be pulled out from among the rest, and that all twisting beyond this is injurious to the strength of the yarn: And we advanced this

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this maxim upon this plain consideration, that it is needless to bind them closer together, for they will already break rather than come out; and because this closer binding is produced only by forcibly wrapping the outer fibres round the inner, and drawing the outer ones tight. Thus these fibres are on the stretch, and are strained as if a weight were hung on each of them. The process of laying lines, of a permanent twist, shows that we must do a little more. We must give the yarn a degree of elastic contractility, which will make it lay itself and form a line or cord which will retain its twist. This must leave the fibres of the yarns in a state of greater compression than is necessary for just keeping them together. But more than this seems to be needless and hurtful. The same maxim must direct us in forming a rope consisting of strands, containing more than one yarn. A needless excess of twist leaves them strained, and less able to perform their office in the rope.

It not unfrequently happens, that the workman, in order to make his rope solid and firm, hardens up the strands till they really break: and we believe that, in the general practice of making large hawsers, many of the outer yarns in the strands, especially those which chance to be outermost in the laid rope, and are therefore most strained, are broken during the operation.

20 Effect of twisting on the strength of ropes, &c.

But there is another consideration which should also make us give no greater twist in any part of the operation than is absolutely necessary for the firm cohesion of the parts, and this independent of the strain to which the fibres or yarns are subjected. Twisting causes all the fibres to lie obliquely with respect to the axis or general direction of the rope. It may just happen that one fibre or one yarn shall keep in the axis, and remain straight; all the rest must be oblique, and the more oblique as they are farther from the axis, and as they are more twisted. Now it is to be demonstrated, that when any strain is given to the rope in the direction of its length, a strain greater than this is actually excited on the oblique fibres, and so much the greater as they are more oblique; and thus the fibres which are already the weakest are exposed to the greatest strains.

Fig. 13. Let CF (fig. 13.) represent a fibre hanging from a hook, and loaded with a weight F, which it is just able to bear, but not more. This weight may represent the absolute force of the fibre. Let such another fibre be laid over the two pulleys A, B (fig. 14.), which are in a horizontal line AB, and let weights F and *f*, equal to the former, be hung on the ends of this fibre, while another weight R, less than the sum of F and *f*, is hung on the middle point C by a hook or thread. This weight will draw down the fibre into such a position ACB, that the three weights F, R, and *f*, are in equilibrio by the intervention of the fibre. We affirm that this weight R is the measure of the relative strength of the fibre in relation to the form ACB; for the fibre is equally stretched in all its parts, and therefore in every part it is strained by the force F. If therefore the weights F and *f* are held fast, and any addition is made to the weight R, the fibre must break, being already strained to its full strength; therefore R measures its strength in relation to its situation. Complete the parallelogram ACBD, and draw the diagonal CD; because AB is horizontal, and AC=BC, DC is vertical, and coincides with the direction CR, by which the weight R acts. The point C is drawn by three forces, which are in equilibrio. They are therefore proportional to the sides of a triangle, which have the same directions; or, the force acting in the direction CA is to that acting in the direction CR as CA to CD. The point R is supported by the two forces CA, CB, which are equivalent to CD; and therefore the weight F is to the weight R as CA is to CD. Therefore the absolute strengths of the two fibres, AC, BC, taken separately, are greater than their united strengths in relation to their position with respect to CR: and since this proportion remains the same, whatever equal weights are hung on at F and *f*, it follows, that when any strain DC is made to act on this fibre in the direction DC, it excites a greater strain on the fibre, because CA and CB taken together are greater than CD. Each fibre sustains a strain greater than the half of CD.

Now let the weight R be turned round the axis CR. This will cause the two parts of the fibre ACB to lap round each other, and compose a twisted line or cord CR, as in fig. 15. and the parallelogram ACBD will remain of the same form, by the yielding of the weights F and *f*, as is evident from the equilibrium of forces. The fibre will always assume that form which makes the sides and diagonal in the proportion of the weights. While the fibres lap round each other, they are strained to the same degree, that is, to the full extent of their strength, and they remain in this degree of strain in every part of the line or cord CR. If therefore each of the fibres has the strength AB, the cord has the strength DC; and if F and *f* be held fast, the smallest addition to R will break the cord. The sum of the absolute strength of the two fibres of which this thread is composed is to the sum of their relative strengths, or to the strength of the thread, as AC+CB is to CD, or as AC is to EC. Fig. 15.

If the weights F and *f* are not held fast, but allowed to yield, a heavier weight *r* may be hung on at C without breaking the fibre; for it will draw it into another position A *c* B, such that *r* shall be in equilibrio with F and *f*. Since F and *f* remain the same, the fibre is as much strained as before. Therefore make *c a*, *c b* equal to CA and CB, and complete the parallelogram *a c b d*, *c d* will now be the measure of the weight *r*, because it is the equivalent of *c a* and *c b*. It is evident that *c d* is greater than CD, and therefore the thread formed by the lapping of the fibre in the position *a c b* is stronger than the former, in the proportion of *c d* to CD, or *c e* to CE. The cord is therefore so much stronger as the fibres are more parallel to the axis, and it must be strongest of all when they are quite parallel. Bring the pulleys A, B, close to each other. It is plain that if we hang on a weight R less than the sum of F and *f*, it cannot take down the bight of the fibre; but if equal to them, although it cannot pull it down, it will keep it down. In this case, when the fibres are parallel to each other, the strength of the cord (improperly so called) is equal to the united absolute strengths of the fibres.

It is easy to see that the length of each of the fibres which compose any part CR of this cord is to the length of the part of the cord as AC to EC; and this is the case even although they should lap round a cylinder of any diameter. This will appear very clearly to any

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Fig. 16.

any person who considers the thing with attention. Let *a c* (fig. 16.) be an indefinitely small portion of the fibre which is lapped obliquely round the cylinder, and let HKG be a section perpendicular to the axis. Draw *a e* parallel to the axis, and draw *e c* to the centre of the circle HKG, and *a e'* parallel to *e c*. It is plain that *e' c* is the length of the axis corresponding to the small portion *a c*, and that *e' c* is equal to *a e*.

Hence we derive another manner of expressing the ratio of the absolute and relative strength; and we may say that the absolute strength of a fibre, which has the same obliquity throughout, is to its relative strength as the length of the fibre to the length of the cord of which it makes a part. And we may say, that the strength of a rope is to the united absolute strength of its yarns as the length of the cord to the length of the yarns; for although the yarns are in various states of obliquity, they contribute to the strength of the cord in as much as they contribute immediately to the strength of the strands. The strength of the yarns is to that of the strands as the length of the yarns to that of the strands, and the strength of the strands is to that of the rope as the length of the first to that of the last.

And thus we see that twisting the fibres diminishes the strength of the assemblage; because their obliquity, which is its necessary consequence, enables any external force to excite a greater strain on the fibres than it could have excited had they remained parallel; and since a greater degree of twisting necessarily produces a greater obliquity of the fibres, it must more remarkably diminish the strength of the cord. Moreover, since the greater obliquity cannot be produced without a greater strain in the operation of twisting, it follows, that immoderate twisting is doubly prejudicial to the strength of cordage.

21 Theoretical deductions confirmed by Reaumur's experiments,

These theoretical deductions are abundantly confirmed by experiment; and as many persons give their assent more readily to a general proposition when presented as an induction from unexceptionable particulars, than when offered as the consequence of uncontroverted principles, we shall mention some of the experiments which have been made on this subject. Mr Reaumur, one of the most zealous, and at the same time judicious, observers of nature, made the following experiments. (*Mem. Acad. Paris*, 1711).

1. A thread, consisting of 832 fibres of silk, each of which carried at a medium 1 dram and 18 grains, would hardly support 5½ pounds, and sometimes broke with 5 pounds. The sum of the absolute strengths of the fibres is 1040 drams, or upwards of 8 pounds 2 ounces.

2. A skain of white thread was examined in many places. Every part of it bore 9½ pounds, but none of it would bear 10. When twisted slack into a cord of 2 yarns it broke with 16 pounds.

3. Three threads were twisted together. Their mean strength was very nearly 8 pounds. It broke with 17½, whereas it should have carried 24.

4. Four threads were twisted. Their mean strength was 7½. It broke with 21½ instead of 30. Four threads, whose strength was nearly 9 pounds, broke with 22 instead of 36.

5. A small and very well made hempen cord broke in different places with 58, 63, 67, 72 pounds. Another part of it was untwisted into its three strands. One of them bore 29½, another 33½, and the third 35; therefore the sum of their absolute strengths was 98. In another part which broke with 72, the strands which had already borne this strain were separated. They bore 26, 28, and 30; the sum of which is 84.

22 and by those of Sir C. Knowles.

Admiral Sir Charles Knowles made many experiments on cordage of size. A piece of rope 3⅓ inches in circumference was cut into many portions. Each of these had a fathom cut off, and it was carefully opened out. It was white, or untarred, and contained 72 yarns. They were each tried separately, and their mean strength was 90 pounds. Each corresponding piece of rope was tried apart, and the mean strength of the nine pieces was 4552 pounds. But 90 times 72 is 6480.

23 Further remarks on twisting.

Nothing is more familiarly known to a seaman than the superior strength of rope-yarns made up into a skain without twisting. They call such a piece of rope a Salvage. It is used on board the king's ships for rolling tackles, slinging the great guns, butt-slings, nippers for holding the viol on the cable, and in every service where the utmost strength and great pliancy are wanted.

It is therefore sufficiently established, both by theory and observation, that the twisting of cordage diminishes its strength. Experiments cannot be made with sufficient precision for determining whether this diminution is in the very proportion, relative to the obliquity of the fibres, which theory points out. In a hawser the yarns lie in a great variety of angles with the axis. The very outermost yarn of a strand is not much inclined to the axis of the rope: for the inclination of this yarn to the axis of its own strand nearly compensates for the inclination of the strand. But then the opposite yarn of the same strand, the yarn that is next the axis of the rope lies with an obliquity, which is the sum of the obliquities of the strand and of the yarn. So that all the yarns which are really in the axis of the rope are exceedingly oblique, and, in general, the inside of the rope has its yarns more oblique than the outside. But in a laid rope we should not consider the strength as made up of the strengths of the yarns; it is made up of the strengths of the strands: For when the rope is violently stretched, it untwists as a rope, and the strands are a little more twisted; so that they are resisting as strands, and not as yarns. Indeed, when we consider the process of laying the rope, we see that it must be so. We know, from what has been already said, that the three strands would carry more when parallel than when twisted into a rope, although the yarns would then be much more oblique to the axis. The chief attention therefore should be turned to the making the most perfect strands.

We are fully authorised to say that the twist given to cordage should be as moderate as possible. We are certain that it diminishes the strength, and that the appearance of strength which its superior smoothness and hardness gives is fallacious. But a certain degree of this is necessary for its duration. If the rope is laid too slack, its parts are apt to open when it happens to be catched in short loops at its going into a pulley, &c. in which case some of the strands or yarns are apt to kink and break. It also becomes too pervious to water, which soaks and rots it. To prevent these and other such inconveniences, a considerable degree of firmness or hard-

ness

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ness is necessary; and in order to give the cordage this appearance of superior strength, the manufacturer is disposed to exceed.

24 Experiments of Du Hamel to ascertain the best degree of twist, &c.

Mr Du Hamel made many experiments in the royal dock-yards in France, with a view to ascertain what is the best degree of twist. It is usual to work up the yarns to $\frac{2}{3}$ of their length. Mr Du Hamel thought this too much, and procured some to be worked up only to $\frac{3}{4}$ of the length of the yarns. The strength of the first, by a mean of three experiments, was 4321, and that of the last was 5187.

He caused three ropes to be made from the same hemp, spun with all possible equability, and in such proportion of yarn that a fathom of each was of the same weight. The rope which was worked up to $\frac{2}{3}$ bore 4098 pounds; that which was worked up to $\frac{3}{4}$ bore 4850; and the one worked up to $\frac{4}{5}$ bore 6205. In another trial the strengths were 4250, 6753, and 7397. These ropes were of different sizes.

He had influence enough, in consequence of these experiments, to get a considerable quantity of rigging made of yarns worked up only to $\frac{3}{4}$ of their length, and had them used during a whole campaign. The officers of the ships reported that this cordage was about $\frac{1}{4}$ lighter than the ordinary kind; nearly $\frac{1}{8}$ slenderer, so as to give less hold to the wind, was therefore more simple and pliant, and run easier through the blocks, and did not run into kinks; that it required fewer hands to work it, in the proportion of two to three; and that it was at least $\frac{1}{4}$ stronger. And they said that it did not appear to have suffered more by using than the ordinary cordage, and was fit for another campaign.

Mr Du Hamel also made experiments on other fabrics of cordage, which made all twisting unnecessary, such as simply laying the yarn in skains, and then covering it with a worming of small line. This he found greatly superior in strength, but it had no duration, because the covering opened in every short bending, and was soon fretted off. He also covered them with a woven coat in the manner practised for house-furniture. But this could not be put on with sufficient tightness, without an enormous expence, after the manner of a horse whip. Small ropes were woven solid, and were prodigiously strong. But all these fabrics were found too soft and pervious to water, and were soon rendered unserviceable. The ordinary process of rope-making therefore must be adhered to; and we must endeavour to improve it by diminishing the twist as far as is compatible with the necessary solidity.

In pursuance of this principle, it is surely advisable to lay slack all such cordage as is used for standing rigging, and is never exposed to short bendings. Shrouds, stays, backstays, pendants, are in this situation, and can easily be defended from the water by tarring, serving, &c.

The same principle also directs us to make such cordage of four strands. When the strands are equally hardened, and when the degree of twist given in the laying is precisely that which is correspondent to the twist of the strands, it is demonstrable that the strands are lying less obliquely to the axis in the four-strand cordage, and should therefore exert greater force. And experience fully confirms this. Mr Du Hamel caused two very small hawsers to be made, in which the strands were equally hardened. One of them had three strands, and the other six with a heart. They were worked up to the same degree. The first broke with 865 pounds, and the other with 1325. Several comparisons were made, with the same precautions, between cordage of three and of four strands, and in them all the four-strand cordage was found greatly superior; and it appeared that a heart judiciously put in not only made the work easier and more perfect to the eye, but also increased the strength of the cordage.

It is surely unreasonable to refuse credit to such a uniform course of experiment, in which there is no motive for imposition, and which is agreeable to every clear notion that we can form on this complicated subject; and it argues a considerable presumption in the professional artists to oppose the vague notions which they have of the matter to the calm reflections, and minute examination of every particular, by a man of good understanding, who had no interest in misleading them.

25 Superiority of cable-laid cordage, &c.

The same principles will explain the superiority of cable-laid cordage. The general aim in rope-making is to make every yarn bear an equal share of the general strain, and to put every yarn in a condition to bear it. But if this cannot be done, the next thing aimed at is, to put the yarn in such situations that the strains to which they are exposed in the use of the rope may be proportioned to their ability to bear it. Even this point cannot be attained, and we must content ourselves with an approach towards it.

The greatest difficulty is to place the yarns of a large strand agreeably to those maxims. Supposing them placed with perfect regularity round the yarn which is in the middle: they will lie in the circumferences of concentric circles. When this whole mass is turned equally round this yarn as an axis, it is plain that they will all keep their places, and that the middle yarn is simply twisted round its axis, while those of the surrounding circles are lapped round it in spirals, and that these spirals are so much more oblique as the yarns are farther from the axis. Suppose the sledge kept fast, so that the strand is not allowed to shorten. The yarns must all be stretched, and therefore strained; and those must be the most extended which are the farthest from the middle yarn. Now allow the sledge to approach. The strand contracts in its general length, and those yarns contract most which were most extended. The remaining extension is therefore diminished in all; but still those which are most remote from the middle are most extended, and therefore most strained, and have the smallest remainder of their absolute force. Unfortunately they are put into the most unfavourable situations, and those which are already most strained are left the most oblique, and have the greatest strain laid on them by any external force. But this is unavoidable: Their greatest hurt is the strains they sustain in the manufacture. When the strand is very large, as in a nine-inch hawser, it is almost impossible to bring the whole to a proper firmness for laying without straining the outer yarns to the utmost, and many of them are broken in the operation.

26 In laying large ropes the strands are twisted in a direction opposite to that of spinning and are consequently stronger

The reader will remember that a two strand line was laid or closed merely by allowing it to twist itself up at the swivel of the loper; and that it was the elasticity arising from the twist of the yarn which produced this effect: and he would probably be surprised when we said,

Fig. 1

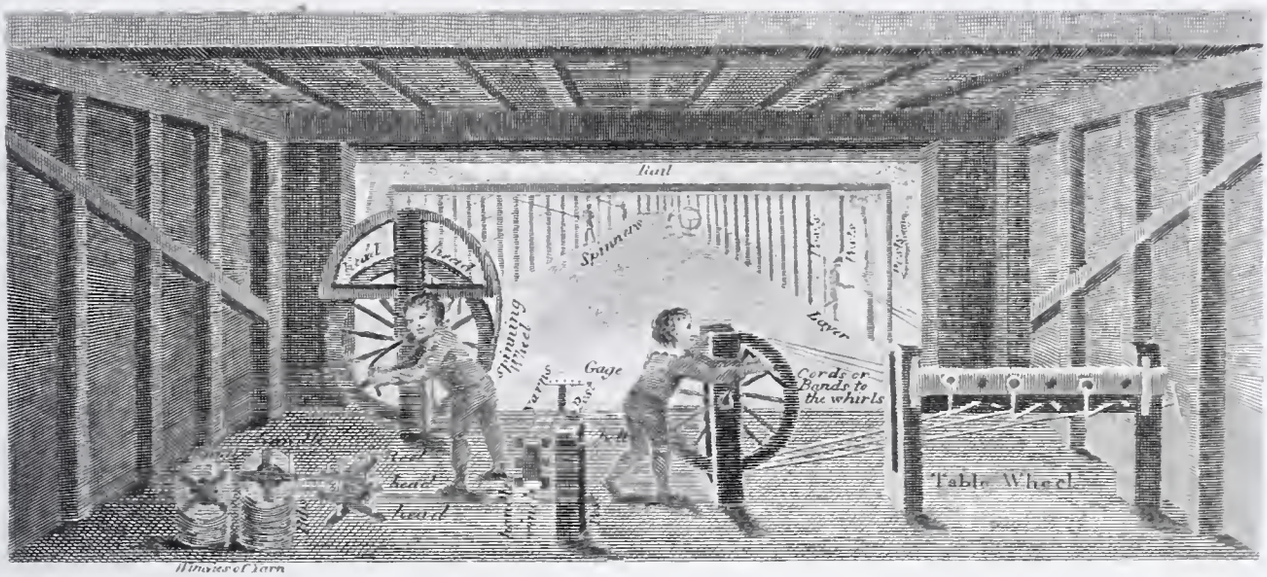


Fig 2

Fig. 3.

Fig. 4.

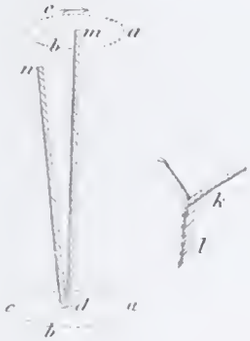


Fig 5.

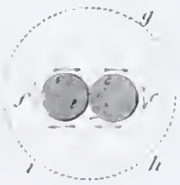
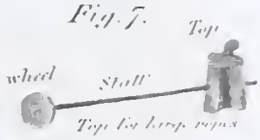


Fig. 7.



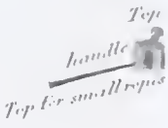


Fig. 6.

Fig. 8.

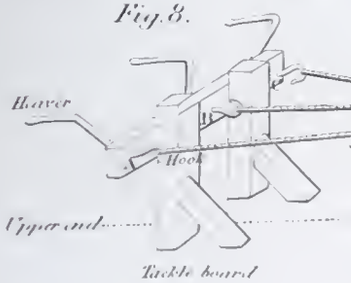


Fig. 10.

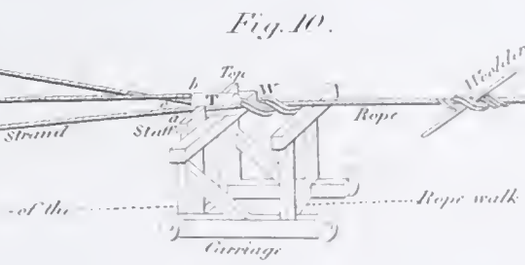


Fig. 9.

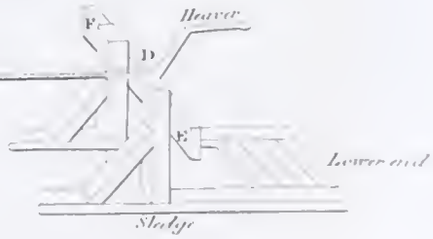


Fig. 11.

Fig. 12.

Fig. 13.

Fig 14

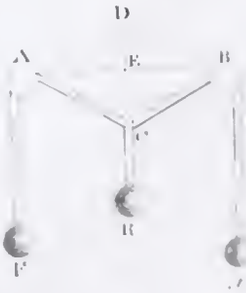


Fig 15.

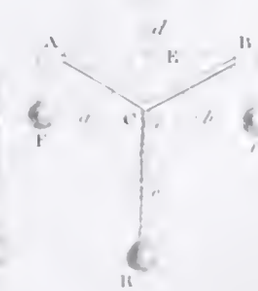
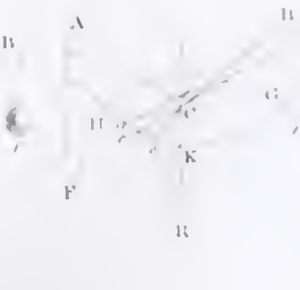


Fig 16.



Rope-making.

said, that, in laying a larger rope, the strands are twisted in a direction opposite to that of the spinning. Since the tendency to close into a rope is nothing but the tendency of the strands to untwist, it would seem natural to twist the strands as the yarns were twisted before. This would be true if the elasticity of the fibres in a yarn produced the same tendency to untwist in the strand that it does in the yarn. But this is not the case. The contraction of one of the outer yarns of a strand tends to pull the strand backward round the axis of the strand: but the contraction of a fibre of this yarn tends to turn the yarn round its own axis, and not round the axis of the strand. It tends to untwist the yarn, but not to untwist the strand. It tends to untwist the strand only so far as it tends to contract the yarn. Let us suppose the yarn to be spun up to one-half the length of the fibres. The contracting power of this yarn will be only one-half of the force exerted by the fibres; therefore, whatever is the force necessary for closing the rope properly, the fibres of the yarns must be exerting twice this force. Now let the same yarn, spun up to one-half, be made up in a strand, and let the strand be twisted in the opposite direction to the spinning till it has acquired the same elasticity fit for laying. The yarns are untwisted. Suppose to three-fourths of the lengths of the fibres. They are now exerting only four-thirds of the force necessary for laying, that is, two-thirds of what they were obliged to exert in the other case; and thus we have stronger yarns when the strands are equally strained. But they require to be more strained than the other; which, being made of more twisted yarn, sooner acquire the elasticity fit for laying. But since the elasticity which fits the strand for laying does not increase so fast as the strain on the fibres of the yarn which produces it, it is plain, that when each has acquired that elasticity which is proper for laying, the strands made of the slack-twisted yarn are the strongest; and the yarns are also the strongest; and being softer, the rope will close better.

Experience confirms all this; and cordage, whose strands are twisted in the opposite direction to the twist of spinning, are found to be stronger than the other in a proportion not less than that of seven to six.

27 Great cordage made by laying it twice.

Such being the difficulty of making a large strand, and its defects when made, we have fallen on a method of making great cordage by laying it twice. A hawser-laid rope, slack spun, little hardened in the strands, and slack laid, is made a strand of a large rope called a *cable* or *cablet*. The advantages of this fabric are evident. The strands are reduced to one-third or one-fourth of the diameter which they would have in a hawser of the same size. Such strands cannot have their yarns lying very obliquely, and the outer yarns cannot be much more strained than the inner ones. There must therefore be a much greater equality in the whole substance of cable-laid cordage, and from this we should expect superior strength.

Accordingly, their superiority is great not less than in the proportion of 13 to 9, which is not far from the proportion of four to three. A cable is more than a fourth part, but is not a third part, stronger than a hawser of the same size or weight.

They are seldom made of more than three hawsers of three strands each, though they are sometimes made of three four-stranded hawsers, or of four three-stranded. The first of these two is preferred, because four small strands can be laid very close; whereas it is difficult to lay well four hawsers, already become very hard.

The superiority of a cable-laid cordage being attributed entirely to the greater perfection of the strands, and this seeming to arise entirely from their smallness, it was natural to expect still better cordage by laying cables as the strands of still larger pieces. It has been tried, and with every requisite attention. But although they have always equalled, they have not decidedly excelled, common cables of the same weight; and they require a great deal more work. We shall not therefore enter upon the manipulations of this fabric.

28 Distribution of the total shortening of the yarns between the hardening of the strands and laying the rope.

There is only one point of the mechanical process of rope-making which we have not considered minutely; and it is an important one, viz. the distribution of the total shortening of the yarns between the hardening of the strands and the laying the rope. This is a point about which the artists are by no means agreed. There is certainly a position of the strands of a laid rope which puts every part in equilibrio; and this is what an elastic, but perfectly soft rope (were such a thing possible), would assume. But this cannot be discovered by any experiments made on large or even on fine cordage; and it may not be thought sufficiently clear that the proportion which would be discovered by the careful fabrication of a very small and soft line is the same that will suit a cordage of any diameter. We must proceed much on conjecture; and we cannot say that the arguments used by the partisans of different proportions are very convincing.

The general practice, we believe, is to divide the whole of the intended shortening of the yarns, or the working up, into three parts, and to employ two of these in hardening the strands, and the remaining third in closing the hawser.

29 Opinion and experiments of Du Hamel.

Mr Du Hamel thinks, that this repartition is injudicious, and that the yarns are too much strained, and the strands rendered weak. He recommends to invert this proportion, and to shorten one-third in the hardening of the strands, and two-thirds in laying the hawser. But if the strain of the yarns only is considered, one should think that the outside yarn of a strand will be more strained in laying, in proportion to the yarn of the same strand, that is, in the very axis of the rope. We can only say, that if a very soft line is formed in this way, it will not keep its twist. This shows that the turns in laying were more than what the elasticity or hardening of the strands required. The experiments made on soft lines always showed a tendency to take a greater twist when the lines were made in the first manner, and a tendency to lose their twist when made in Mr Du Hamel's manner. We imagine that the true proportion is between these two extremes, and that we shall not err greatly if we have the total shortening between the two parts of the process. If working up to two-thirds be insisted upon, and if it be really too much, Mr Du Hamel's repartition may be better, because part of this working will quickly go off when the cordage is used. But it is surely better to be right in the main point, the total working up, and then to adjust the distribution of it so that the finished cordage shall precisely keep the form we have given to it.

There must be the same uncertainty in the quadruple distribution

Rope-making.

distribution of the working up a cable. When a cable has its yarns shortened to two-thirds, we believe the ordinary practice has been, 1st, To warp 180 fathoms; 2d, To harden up the strands 30 fathoms; 3d, To lay or close up 13 fathoms; 4th, To work up the hawsers nine fathoms; 5th, To close up eight fathoms. This leaves a cable of 120. Since Mr Du Hamel's experiments have had an influence at Rochefort, the practice has been to warp 190, to harden up 38, to lay up 12, to work up the hawsers 10, and then to close up six; and when the cable is finished, to shorten it two fathoms more, which our workmen call *throwing the turn well up*. This leaves a cable of 122 fathoms.

As there seems little doubt of the superiority of cordage shortened one-fourth over cordage shortened one-third, the following distribution may be adopted: warp 190 fathoms, harden up 12, lay up 11, work up the hawsers 12, and close up 12 more, which will leave a cable of 143.

30 Of the strains made use of during the operation.

There is another question about which the artists are divided in their opinions, viz. the strains made use of during the operation. This is produced by the weight laid on the sledge. If this be too small, the strands will not be sufficiently tightened, and will run into kinks. The sledge will come up by starts: and a small inequality of twist in the strands will throw it askew. The top will not run well without a considerable pressure to throw it from the closing point, and therefore the cordage will neither close fairly nor firmly; on the other hand, it is evident, that the strain on the strands is a complete expenditure of so much of their force, and it may be so great as to break them. These are the extreme positions. And we think that it may be fairly deduced from our principles, that as great a strain should be laid on the strands as will make good work, that is, as will enable the rope to close nearly and completely, but no more. But can any general rule be given for this purpose?

The practice at Rochefort was to load the sledge till its weight and load were double the weight of the yarns when warped 180 fathoms. A six-inch hawser will require about a ton. If we suppose the friction one-third of the weight; the strain on each strand will be about two hundred and a quarter weight. Mr Du Hamel thinks this too great a load, and proposes to put only five-fourths or three-seconds of the weight of the cordage; and still less if a shorter piece be warped, because it does not require so much force to throw the twist from the two cranks to the middle of the strand. We shall only say, that stronger ropes are made by heavy loading the carriage, and working up moderately, than by greater shortening, and a lighter load; but all this is very vague.

31 General rule for computing the strength of cordage.

The reader will naturally ask, after this account of the manufacture, what is the general rule for computing the strength of cordage? It cannot be expected to be very precise. But if ropes are made in a manner perfectly similar, we should expect the strength to be in proportion to the area of their section; that is, to the square of their diameters or circumferences, or to the number of equal threads contained in them.

Nor does it deviate far from this rule; yet Mr Du Hamel shows, from a range of experiments made on all cordage of 3½ inch circumference and under, that the strength increases a little faster than the number of equal threads. Thus he found that ropes of

9 threads bore	1014 pounds, instead of	946
12	1564	1262
18	2148	1893

We cannot pretend to account for this. We must also observe, that the strength of cordage is greatly improved by making them of yarn spun fine. This requires finely dressed hemp; and being more simple, the fibres lie close, and do not form such oblique spirals. But all hemp will not spin equally fine. Every stalk seems to consist of a certain number of principal fibres, which split more easily into a second set, and these more difficultly into a third set, and so on. The ultimate fineness, therefore, which a reasonable degree of dressing can give to hemp, bears some proportion, not indeed very precise, to the size of the stalk. The British and Dutch use the best hemp, spin their yarn the finest, and their cordage is considerably stronger than the French, much of which is made of their own hemp, and others of a coarse and harsh quality.

The following rule for judging of the weight which a rope will bear is not far from the truth. It supposes them rather too strong; but it is so easily remembered that it may be of use.

Multiply the circumference in inches by itself, and take the fifth part of the product, it will express the tons which the rope will carry. Thus, if the rope have six inches circumference, 6 times 6 is 36, the fifth of which is $7\frac{1}{5}$ tons; apply this to the rope of $3\frac{1}{5}$, on which Sir Charles Knowles made the experiments formerly mentioned, $3\frac{1}{5} \times 3\frac{1}{5} = 10.25$, $\frac{1}{5}$ of which is 2.05 tons, or 4592 pounds. It broke with 4550.

32 Of tarring and its effects on the strength of ropes.

This may suffice for an account of the mechanical part of the manufacture. But we have taken no notice of the operation of tarring; and our reason was, that the methods practised in different rope-works are so exceedingly different, that we could hardly enumerate them, or even give a general account of them. It is evidently proper to tar in the state of twine or yarn, this being the only way that the hemp could be uniformly penetrated. The yarn is made to wind off one reel, and having passed through a vessel containing hot tar, it is wound up on another reel; and the superfluous tar is taken off by passing through a hole surrounded with spongy oakum: or it is tarred in skains or hauls, which are drawn by a capstern through the tar-kettle, and through a hole formed of two plates of metal, held together by a lever loaded with a weight.

It is established beyond a doubt, that tarred cordage when new is weaker than white, and that the difference increases by keeping. The following experiments were made by Mr Du Hamel at Rochefort on cordage of three inches (French) in circumference, made of the best Riga hemp.

	White.	*Tarred.*
August 8. 1741.		
Broke with	4500 pounds.	3400 pounds.
	4900	3300
	4800	3250
April 25. 1743.		
	4600	3500
	5000	3400
	5000	3400

September

Rope-making.

September 3. 1746.

3800	3000
4000	2700
4200	2800

A parcel of white and tarred cordage was taken out of a quantity which had been made February 12. 1746. It was laid up in the magazines, and comparisons were made from time to time as follows:

	White bore.	*Tarred bore.*	*Differ.*
1746 April	14. 2645 pounds.	2312 pounds	333
1747 May	18. 1762	2155	607
1747 Oct.	21. 2710	2050	660
1748 June	19. 2575	1752	823
1748 Oct.	2. 2425	1837	588
1749 Sep.	25. 2917	1865	1052

Mr Du Hamel says, that it is decided by experience, 1. That white cordage in continual service is one-third more durable than tarred. 2. That it retains its force much longer while kept in store. 3. That it resists the ordinary injuries of the weather one-fourth longer.

We know this one remarkable fact. In 1758 the shrouds and stays of the Sheer hulk at Portsmouth dock-yard were overhawled, and when the worming and service were taken off, they were found to be of white cordage. On examining the storekeepers books, they were found to have been formerly the shrouds and rigging of the Royal William, 110 guns, built in 1715, and rigged in 1716. She was thought top-heavy and unfit for sea, and unrigged and her stores laid up. Some few years afterwards, her shrouds and stays were fitted on the Sheer hulk, where they remained in constant and very hard service for about 30 years, while every tarred rope about her had been repeatedly renewed. This information we received from Mr Brown, boatswain of the Royal William during the war in 1758, &c.

Why then do we tar cordage? We thus render it more unpliant, weaker, and less durable. It is chiefly serviceable for cables and ground tackle, which must be continually wetted and even soaked. The result of careful observation is, 1. That white cordage, exposed to be alternately very wet and dry, is weaker than tarred cordage. 2. That cordage which is superficially tarred is constantly stronger than what is tarred throughout, and it resists better the alternatives of wet and dry. N.B. The shrouds of the sheer hulk were well tarred and blacked, so that it was not known that they were of white cordage.

Tar is a curious substance, miscible completely with water. Attempts were made to anoint cordage with oils and fats which do not mix with water. This was expected to defend them from its pernicious effects. But it was distinctly found that these matters made the fibres of hemp glide so easily on each other, that it was hardly possible to twist them permanently. Before they grasped each other so hard that they could not be drawn, they were strained almost to breaking.

33 Effect of tanning.

Attempts have been made to increase the strength of cordage by tanning. But though it remains a constant practice in the manufacture of nets, it does not appear that much addition, either of strength or durability, can be given to cordage by this means. The trial has been made with great care, and by persons fully able to conduct the process with propriety. But it is found that the yarns take so long time in drying, and are so much hurt by drying slowly, that the room required for a considerable rope-work would be immense; and the improvement of the cordage is but trifling, and even equivocal. Indeed tanning is a chemical process, and its effects depend entirely on the nature of the materials to which the tan is applied. It unquestionably condenses, and even strengthens, the fibre of leather: but for any thing that we know *à priori*, it may destroy the cohesion of hemp and flax; and experiment alone could decide the question. The result has been unfavourable; but it does not follow from this that a tan cannot be found which shall produce on the texture of vegetables effects similar to what oak-bark and other astringents produce on the animal fibre or membrane. It is well known that some dyes increase the strength of flax and cotton, notwithstanding the corrosion which we know to be produced by some of the ingredients. This is a subject highly worth the attention of the chemist and the patriot.

Rope-Dancer. See *Rope-Dancer.*

Rope-Yarn, among sailors, is the yarn of any rope untwisted, but commonly made up of junk; its use is to make sinnet, matts, &c.

ROQUET. See Rocket.

RORIDULA, a genus of plants belonging to the pentandria class See Botany *Index.*

ROSA, the Rose; a genus of plants belonging to the icosandria class; and in the natural method ranking under the 35 h order, *Senticosæ.* See Botany *Index.*

The sorts of roses are very numerous; and the botanists find it very difficult to determine with accuracy which are species and which are varieties, as well as which are varieties of the respective species. On this account Linnæus, and some other eminent authors, are inclined to think that there is only one real species of rose, which is the *rosa canina*, or "dog rose of the hedges," &c. and that all the other sorts are accidental varieties of it. However, according to the present Linnæan arrangement, they stand divided into 14 supposed species, each comprehending varieties, which in some sorts are but few, in others numerous.

The supposed species and their varieties according to the arrangement of modern botanists, are as follows:

1. The canina, canine rose, wild dog-rose of the hedges, or hep-tree, grows five or six feet high, having prickly stalks and branches, pinnated five or seven-lobed leaves, with aculeated foot stalks, smooth pedunculi, oval smooth germina, and small single flowers. There are two varieties, red-flowered and white-flowered. They grow wild in hedges abundantly all over the kingdom; and are sometimes admitted into gardens, a few to increase the variety of the shrubbery collection.

2. The alba, or common white-rose, grows five or six feet high, having a green stem and branches, armed with prickles, hispid pedunculi, oval smooth germina and large white flowers. The varieties are,—large double white rose—dwarf single white rose—maidens-blush white rose, being large, produced in clusters, of a white and blush-red colour.

3. The Gallica, or Gallican rose, &c. grows from about three or four to eight or ten feet high, in different varieties, with pinnated, three, five, or seven-lobed leaves, and large red and other coloured flowers in different

ferent sorts. This species is very extensive in supposed varieties, bearing the above specific distinction, several of which have been formerly considered as distinct species, but are now ranged among the varieties of the Gallican rose, consisting of the following noted varieties.

Common red officinal rose, grows erect, about three or four feet high, having small branches, with but few prickles, and large spreading half-double deep-red flowers.—Rosa mundi (rose of the world) or striped red rose, is a variety of the common red rose, growing but three or four feet high, having large spreading semi-double red flowers, beautifully striped with white—and deep red.—York and Lancaster variegated rose, grows five, six, or eight feet high, or more; bearing variegated red flowers, consisting of a mixture of red and white; also frequently disposed in elegant stripes, sometimes in half of the flower, and sometimes in some of the petals.—Monthly rose, grows about four or five feet high, with green very prickly shoots; producing middle-sized, moderately-double delicate flowers, of different colours in the varieties. The varieties are common red-flowered monthly rose—blush-flowered—white flowered—striped-flowered. All of which blow both early and late, and often produce flowers several months in the year, as May, June, and July; and frequently again in August or September, and sometimes in fine mild seasons, continues till November or December: hence the name *monthly rose*.—Double virgin-rose, grows five or six feet high, having greenish branches with scarce any spines; and with large double pale-red and very fragrant flowers.—Red damask rose, grows eight or ten feet high, having greenish branches, armed with short aculea; and moderately-double, fine soft-red, very fragrant flowers.—White damask rose, grows eight or ten feet high, with greenish very prickly branches, and white-red flowers, becoming gradually of a whiter colour.—Blush Belgic rose, grows three or four feet high, or more; having greenish prickly branches, five or seven lobed leaves, and numerous, very double, blush-red flowers, with short petals, evenly arranged.—Red Belgic rose, having greenish and red shoots and leaves, and fine double deep-red flowers.—Velvet rose, grows three or four feet high, armed with but few prickles; producing large velvet-red flowers, comprising semi-double and double varieties, all very beautiful roses.—Marbled rose, grows four or five feet high, having brownish branches, with but few prickles; and large, double, finely-marbled, red flowers.—Red and yellow Austrian rose, grows five or six feet high, having slender reddish branches, armed with short brownish aculea; and with flowers of a reddish copper colour on one side, the other side yellow. This is a curious variety, and the flowers assume a singularly agreeable appearance.—Yellow Austrian rose, grows five or six feet high, having reddish very prickly shoots; and numerous bright-yellow flowers.—Double yellow rose, grows six or seven feet high; with brownish branches, armed with numerous large and small yellowish prickles; and large very double yellow flowers.—Frankfort rose, grows eight or ten feet high, is a vigorous shooter, with brownish branches thinly armed with strong prickles; and produces largish double purplish-red flowers, that blow irregularly, and have but little fragrance.

4. The centifolia, or hundred-leaved red rose, &c. grows from about three or four to six or eight feet high, in different sorts, all of them hispid and prickly; pinnated three and five-lobed leaves; and large very double red flowers, having very numerous petals, and of different shades in the varieties. The varieties are, —common Dutch hundred-leaved rose, grows three or four feet high, with erect greenish branches, but moderately armed with prickles; and large remarkably double red flowers, with short regularly arranged petals. —Blush hundred-leaved rose, grows like the other, with large very double pale-red flowers.—Provence rose, grows five or six feet, with greenish-brown prickly branches, and very large double globular red flowers, with large petals folding over one another, more or less in the varieties.—The varieties are, common red Provence rose, and pale Provence rose; both of which having larger and somewhat looser petals than the following sort.—Cabbage Provence rose; having the petals closely folded over one another like cabbages.—Dutch cabbage rose, very large, and cabbages tolerably. —Childing Provence rose—Great royal rose, grows six or eight feet high, producing remarkably large, somewhat loose, but very elegant flowers.—All these are large double red flowers, somewhat globular at first blowing, becoming gradually a little spreading at top, and are all very ornamental fragrant roses.—Moss Provence rose, supposed a variety of the common rose; grows erectly four or five feet high, having brownish stalks and branches, very closely armed with short prickles, and double crimson-red flowers; having the calyx and upper part of the peduncle surrounded with a rough mossy-like substance, effecting a curious singularity. This is a fine delicate rose, of a high fragrance, which together with its mossy calyx, renders it of great estimation as a curiosity.

5. The cinnamomea, or cinnamon rose, grows five or six feet high, or more, with purplish branches thinly aculeated; pinnated five or seven-lobed leaves, having almost inermous petioles, smooth pedunculi, and smooth globular germina; with small purplish-red cinnamon-scented flowers early in May. There are varieties with double flowers.

6. The Alpina, or Alpine inermous rose, grows five or six feet high, having smooth or unarmed reddish branches, pinnated seven-lobed smooth leaves, somewhat hispid pedunculi, oval germina, and deep-red single flowers; appearing in May. This species, as being free from all kinds of armature common to the other sorts of roses, is esteemed as a singularity; and from this property is often called the *virgin rose*.

7. The Carolina, or Carolina and Virginia rose, &c. grows six or eight feet hight, or more, having smooth reddish branches, very thinly aculeated; pinnated seven-lobed smooth leaves, with prickly foot-stalks; somewhat hispid pedunculi, globose hispid germen, and single red flowers in clusters, appearing mostly in August and September. The varieties are, dwarf Pennsylvanian rose, with single and double red flowers—American pale-red rose. This species and varieties grow naturally in different parts in North America; they effect a fine variety in our gardens, and are in estimation for their late-flowering property, as they often continue in blow from August until October; and the flowers are succeeded by numerous red berry-like heps in autumn, causing a variety all winter.

8. The villosa, or villose apple-bearing rose, grows

six or eight feet high, having strong erect brownish smooth branches; aculeated sparsedly pinnated seven-lobed villose or hairy leaves, downy underneath, with prickly foot-stalks, hispid peduncles, a globular prickly germen; and large single red flowers, succeeded by large round prickly heps, as big as little apples. This species merits admittance into every collection as a curiosity for the singularity of its fruit, both for variety and use; for it having a thick pulp of an agreeable acid relish, is often made into a tolerable good sweetmeat.

9. The pimpinellifolia, or burnet-leaved rose, grows about a yard high, aculeated sparsedly; small neatly pinnated seven-lobed leaves, having obtuse folioles and rough petioles, smooth peduncles, a globular smooth germen, and small single flowers. There are varieties with red flowers—and with white flowers. They grow wild in England, &c. and are cultivated in shrubberies for variety.

10. The spinosissima, or most spinous, dwarf burnet-leaved rose, commonly called *Scotch rose*, grows but two or three feet high, very closely armed with spines; small neatly pinnated seven-lobed leaves, with prickly foot-stalks, prickly pedunculi, oval smooth germen, and numerous small single flowers, succeeded by round dark-purple heps. The varieties are, common white-flowered—red-flowered—striped-flowered—marble-flowered. They grow naturally in England, Scotland, &c. The first variety rises near a yard high, the others but one or two feet, all of which are single-flowered; but the flowers being numerous all over the branches, make a pretty appearance in the collection.

11. The eglanteria, eglantine rose, or sweet-briar, grows five or six feet high, having green branches, armed with strong spines sparsedly; pinnated seven-lobed odoriferous leaves, with acute folioles and rough foot-stalks, smooth pedunculi, globular smooth germina, and small pale-red flowers. The varieties are, common single-flowered--semi-double flowered--double-flowered—blush double-flowered—yellow-flowered. This species grows naturally in some parts of England, and in Switzerland. It claims culture in every garden for the odoriferous property of its leaves; and should be planted in the borders, and other compartments contiguous to walks, or near the habitation, where the plants will impart their refreshing fragrance very profusely all around; and the young branches are excellent for improving the odour of nosegays and bow-pots.

12. The moschata, or musk-rose, supposed to be a variety only of the ever-green musk rose, hath weak smooth green stalks and branches, rising by support from six to eight or ten feet high or more, thinly armed with strong spines; pinnated seven-lobed smooth leaves, with prickly foot-stalks; hispid peduncles; oval hispid germen; and all the branches terminated by large umbellate clusters of pure-white musk-scented flowers in August, &c.

13. The sempervirens, or ever-green musk-rose, hath a somewhat trailing stalk and branches, rising by support five or six feet high or more, having a smooth bark armed with prickles; pinnated five-lobed smooth shining evergreen-leaves, with prickly petioles, hispid pedunculi, oval hispid germen; and all the branches terminated by clusters of pure-white flowers of a musky fragrance; appearing the end of July, and in August. The sempervirent property of this elegant species renders it a curiosity among the rosy tribe; it also makes a fine appearance as a flowering shrub. There is one variety, the deciduous musk-rose above mentioned. This species and variety flowers in August, and is remarkable for producing them numerously in clusters, continuing in succession till October or November.

The above 13 species of rosa, and their respective varieties, are of the shrub-kind; all deciduous, except the last sort, and of hardy growth, succeeding in any common soil and situation, and flowering annually in great abundance from May till October, in different sorts; though the general flowering season for the principal part of them is June and July: but in a full collection of the different species, the blow is continued in constant succession several months, even sometimes from May till near Christmas; producing their flowers universally on the same year's shoots, rising from those the year before, generally on long pedunculi, each terminated by one or more roses, which in their characteristic state consist each of five large petals and many stamina; but in the doubles, the petals are very numerous; and in some sorts, the flowers are succeeded by fruit ripening to a red colour in autumn and winter, from the seed of which the plants may be raised; but the most certain and eligible mode of propagating most of the sorts is by suckers and layers; and by which methods they may be increased very expeditiously in great abundance.

The white and red roses are used in medicine. The former distilled with water yields a small portion of a butyraceous oil, whose flavour exactly resembles that of the roses themselves. This oil and the distilled water are very useful and agreeable cordials. These roses also, besides the cordial and aromatic virtues which reside in their volatile parts, have a mild purgative one, which remains entire in the decoction left after distillation. The red rose, on the contrary, has an astringent and gratefully corroborating virtue.

Rosa, *Salvator*, an admirable painter, born at Naples in 1614. He was first instructed by Francesco Francazano, a kinsman: but the death of his father reduced him to sell drawings sketched upon paper for any thing he could get; one of which happening to fall into the hands of Lanfranc, he took him under his protection, and enabled him to enter the school of Spagnoletto, and to be taught moreover by Daniel Falcone, a distinguished painter of battles at Naples. Salvator had a fertile imagination. He studied nature with attention and judgment; and always represented her to the greatest advantage: for every tree, rock, cloud, or situation, that enters into his composition, shows an elevation of thought that extorts admiration. He was equally eminent for painting battles, animals, sea or land storms; and he executed these different subjects in such taste as renders his works readily distinguishable from all others. His pieces are exceedingly scarce and valuable; one of the most capital is that representing Saul and the witch of Endor, which was preserved at Versailles. He died in 1673; and as his paintings are in few hands, he is more generally known by his prints, of which he etched a great number. He painted land-capes more than history; but his prints are chiefly historical. The capital landscape of this master

master at Chiswick is a noble picture. However, he is said to have been ignorant of the management of light, and to have sometimes shaded faces in a disagreeable manner. He was however a man of undoubted genius; of which he has given frequent specimens in his works. A roving disposition, to which he is said to have given full scope, seems to have added a wildness to all his thoughts. We are told that he spent the early part of his life in a troop of banditti; and that the rocky desolate scenes in which he was accustomed to take refuge, furnished him with those romantic ideas in landscape, of which he is so exceedingly fond, and in the description of which he so greatly excels. His *robbers*, as his detached figures are commonly called, are supposed also to have been taken from the life.

Salvator Rosa is sufficiently known as a painter; but he is little known as a musician. Among the musical manuscripts purchased at Rome by Dr Burney, was a music book of Salvator, in which are many airs and cantatas of different masters, and eight entire cantatas, written, set, and transcribed by this celebrated painter himself. From the specimen of his talents for music here given, we make no scruple of declaring, that he had a truer genius for this science, in point of melody, than any of his predecessors or contemporaries: there is also a strength of expression in his verses, which sets him far above the middle rank as a poet. Like most other artists of real original merit, he complains of the ill usage of the world and the difficulty he finds in procuring a bare subsistence.

ROSACEA. See *Gutta Rosacea.*

ROSACEOUS, among botanists, an appellation given to such flowers as are composed of several petals or leaves disposed in a sort of circular form, like those of a rose.

ROSAMOND, daughter of Walter Lord Clifford, was a young lady of exquisite beauty, fine accomplishments, and blessed with a most engaging wit and sweetness of temper. She had been educated, according to the custom of the times, in the nunnery of Godstow; and the popular story of her is as follows: Henry II. saw her, loved her, declared his passion, and triumphed over her honour. To avoid the jealousy of his queen Elinor, he kept her in a wonderful labyrinth at Woodstock, and by his connexion with her had William Longsword earl of Salisbury, and Geoffrey bishop of Lincoln. On Henry's absence in France, however, on account of a rebellion in that country, the queen found means to discover her, and, though struck with her beauty, she recalled sufficient resentment to poison her. The queen, it is said, discovered her apartment by a thread of silk; but how she came by it is differently related. This popular story is not however supported by history; several writers mention no more of her, than that the queen so vented her spleen on Rosamond as that the lady lived not long after. Other writers assert that she died a natural death; and the story of her being poisoned is thought to have arisen from the figure of a cup on her tomb. She was buried in the church of Godstow, opposite to the high altar, where her body remained till it was ordered to be removed with every mark of disgrace by Hugh bishop of Lincoln in 1191. She was, however, by many considered as a saint after her death, as appears from an inscription on a cross which Leland says stood near Godstow:

Qui meat hac oret, signum salutis adoret,
Utque sibi detur veniam. Rosamunda precetur.

And also by the following story: Rosamond during her residence at her bower, made several visits to Godstow; where being frequently reproved for the life she led, and threatened with the consequences in a future state, she always answered, that she knew she should be saved; and as a token to them, showed a tree which she said would be turned into a stone when she was with the saints in heaven. Soon after her death this wonderful metamorphosis happened, and the stone was shown to strangers at Godstow till the time of the dissolution.

Grose's Antiquities of England and Wales vol. iv. p. 176, &c.

ROSARY, among the Roman Catholics. See Chaplet.

ROSBACH, a town of Germany, in Saxony, famous for a victory obtained here by the king of Prussia over the French, on November 5 1757, in which 10,000 of the French were killed or taken prisoners, with the loss of no more than 500 Prussians. See Prussia, N°. 80.

ROSCHILD, a town of Denmark, in the isle of Zealand, with a bishop's see and a small university. It is famous for a treaty concluded here in 1658; and in the great church there are several tombs of the kings of Denmark. It is seated at the bottom of a small bay, in E. Long 12. 6. N. Lat. 55. 40. See Roskild.

ROSCOMMON, a county of Ireland, in the province of Connaught, bounded on the west by the river Suc, on the east by the Shannon on the north by the Curlew mountains, on the south and south-east by the King's county, and part of Galway. Its length is 50 miles, its breadth 28. The air of the county, both on the plains and mountains, is healthy: the soil yields plenty of grass with some corn and feeds numerous herds of cattle. The Curlew mountains on the north are very high and steep; and, till a road with great labour and difficulty was cut through them, were impassable. This county contains 59 parishes 86,000 inhabitants, and sends two members to the imperial parliament See Roscommon Supplement.

Roscommon, which gives the title of earl to the family of Dillon, and name to the county, though not large, is both a parliamentary borough, and the county town.

Roscommon, *Wentworth Dillon, Earl of*, a celebrated poet of the 17th century, was the son of James Dillon earl of Roscommon; and was born in Ireland, under the administration of the first earl of Strafford, who was his uncle, and from whom he received the name of *Wentworth* at his baptism. He passed his infancy in Ireland; after which the earl of Strafford sent for him into England, and placed him at his own seat in Yorkshire, under the tuition of Dr Hall, afterwards bishop of Norwich, who instructed him in Latin, without teaching him the common rules of grammar, which he could never retain in his memory, and yet he learned to write in that language with classical elegance and propriety. On the earl of Strafford's being impeached, he went to complete his education at Caen in Normandy; and after some years travelled to Rome, where he became acquainted with the most valuable remains of antiquity, and in particular was well skilled in medals, and learned to speak Italian with such grace and fluency, that he was frequently taken for a native. He returned

turned to England soon after the Restoration, and was made captain of the band of pensioners; but a dispute with the lord privy-seal, about a part of his estate, obliged him to resign his post, and revisit his native country, where the duke of Ormond appointed him captain of the guards. He was unhappily very fond of gaming; and as he was returning to his lodgings from a gaming-table in Dublin, he was attacked in the dark by three ruffians, who were employed to assassinate him. The earl defended himself with such resolution, that he had dispatched one of the aggressors, when a gentleman passing that way took his part, and disarmed another, on which the third sought his safety in flight. This generous assistant was a disbanded officer of good family and fair reputation, but reduced to poverty; and his lordship rewarded his bravery by resigning to him his post of captain of the guards. He at length returned to London; when he was made master of the horse to the duchess of York, and married the lady Frances, eldest daughter of Richard earl of Burlington, who had been the wife of Colonel Courtney. He here distinguished himself by his writings; and in imitation of those learned and polite assemblies with which he had been acquainted abroad, began to form a society for refining and fixing the standard of the English language, in which his great friend Mr Dryden was a principal assistant. This scheme was entirely defeated by the religious commotions which ensued on King James's accession to the throne. In 1683 he was seized with the gout; and being too impatient of pain, he permitted a bold French empiric to apply a repelling medicine, in order to give him present relief; this drove the distemper into his bowels, and in a short time put a period to his life, in January 1684. He was buried with great pomp in Westminster-abbey.

His poems, which are not numerous, are in the body of English poetry collected by Dr Johnson. His "Essay on Translated Verse," and his translation of "Horace's Art of Poetry," have great merit. Waller addressed a poem to his lordship upon the latter, when he was 75 years of age. "In the writings of this nobleman we view (says Fenton) the image of a mind naturally serious and solid; richly furnished and adorned with all the ornaments of art and science: and those ornaments unaffectedly disposed in the most regular and elegant order. His imagination might probably have been more fruitful and sprightly, if his judgment had been less severe; but that severity (delivered in a masculine, clear, succinct style) contributed to make him so eminent in the didactical manner, that no man, with justice, can affirm he was equalled by any of our nation, without confessing at the same time that he is inferior to none. In some other kinds of writing his genius seems to have wanted fire to attain the point of perfection; but who can attain it? He was a man of an amiable disposition, as well as a good poet; as Pope, in his 'Essay on Criticism,' hath testified in the following lines:

——Roscommon not more learn'd than good,
With manners generous as his noble blood;
To him the wit of Greece and Rome was known,
And every author's merit but his own."

We must allow of Roscommon, what Fenton has not mentioned so distinctly as he ought, and, what is yet very much to his honour, that he is perhaps the only correct writer in verse before Addison; and that, if there are not so many or so great beauties in his compositions as in those of some contemporaries, there are at least fewer faults. Nor is this his highest praise; for Pope has celebrated him as the only moral writer of King Charles's reign:

Unhappy Dryden! in all Charles's days,
Roscommon only boasts unspotted lays.

Of Roscommon's works, the judgment of the public seems to be right. He is elegant; but not great; he never labours after exquisite beauties, and he seldom falls into gross faults. His versification is smooth, but rarely vigorous, and his rhymes are remarkably exact. He improved taste, if he did not enlarge knowledge, and may be numbered among the benefactors to English literature.

ROSE, in *Botany*. See Rosa.

Essence of Roses. See *Roses, Otter of*.

Rose of Jericho, so called because it grows in the plain of Jericho, though it did not originally grow there. It has perhaps been so named by travellers who did not know that it was brought from Arabia Petræa. Rose bushes are frequently found in the fields about Jericho; but they are of a species much inferior to those so much extolled in Scripture, the flowers of which some naturalists pretend to have in their cabinets.

"The rose shrub of Jericho (says Mariti) is a small plant, with a bushy root, about an inch and a half in length. It has a number of stems which diverge from the earth: they are covered with few leaves; but it is loaded with flowers, which appear red when in bud, turn paler as they expand, and at length become white entirely. These flowers appear to me to have a great resemblance to those of the elder-tree; with this difference, that they are entirely destitute of smell. The stems never rise more than four or five inches from the ground. This shrub sheds its leaves and its flowers as it withers. Its branches then bend in the middle, and, becoming entwined with each other to the top, form a kind of globe. This happens during the great heats; but during moist and rainy weather they again open and expand.

"In this country of ignorance and superstition, people do not judge with a philosophical eye of the alternate shutting and opening of this plant: it appears to them to be a periodical miracle, which heaven operates in order to make known the events of this world. The inhabitants of the neighbouring cantons come and examine these shrubs when they are about to undertake a journey, to form an alliance, to conclude any affair of importance, or on the birth of a son. If the stems of the plants are open, they do not doubt of success; but they account it a bad omen to see them shut, and therefore renounce their project if it be not too late.

"This plant is neither subject to rot nor to wither. It will bear to be transplanted: and thrives without degenerating in any kind of soil whatever."

Roses, Otter or *essential oil* of, is obtained from roses by simple distillation, and may be made in the following manner: A quantity of fresh roses, for example 40 pounds, are put in a still with 60 pounds of water, the roses being left as they are with their calyxes, but with

with the stems cut close. The mass is then well mixed together with the hands, and a gentle fire is made under the still; when the water begins to grow hot, and fumes to rise, the cap of the still is put on, and the pipe fixed; the chinks are then well luted with paste, and cold water put on the refrigeratory at top: the receiver is also adapted at the end of the pipe; and the fire is continued under the still, neither too violent nor too weak. When the impregnated water begins to come over, and the still is very hot, the fire is lessened by gentle degrees, and the distillation continued till 30 pounds of water are come over, which is generally done in about four or five hours; this rose-water is to be poured again on a fresh quantity (40 pounds) of roses, and from 15 to 20 pounds of water are to be drawn by distillation, following the same process as before. The rose-water thus made and cohobated will be found, if the roses were good and fresh, and the distillation carefully performed, highly scented with the roses. It is then poured into pans either of earthen ware or of tinned metal, and left exposed to the fresh air for the night. The otter or essence will be found in the morning congealed, and swimming on the top of the water; this is to be carefully separated and collected either with a thin shell or a skimmer, and poured into a vial. When a certain quantity has thus been obtained, the water and feces must be separated from the clear essence, which, with respect to the first, will not be difficult to do, as the essence congeals with a slight cold, and the water may then be made to run off. If, after that, the essence is kept fluid by heat, the feces will subside, and may be separated; but if the operation has been neatly performed, these will be little or none. The feces are as highly perfumed as the essence, and must be kept, after as much of the essence has been skimmed from the rose-water as could be. The remaining water should be used for fresh distillations, instead of common water, at least as far as it will go.

The above is the whole process, as given in the Asiatic Researches by Lieutenant-colonel Polier*, of making genuine otter of roses. But attempts (he says) are often made to augment the quantity, though at the expence of the quality. Thus the raspings of sandal-wood, which contain a deal of essential oil, are used; but the imposition is easily discovered, both by the smell, and because the essential oil of sandal-wood will not congeal in common cold. In other places they adulterate the otter by distilling with the roses a sweet-scented grass, which colours it of a high clear green. This does not congeal in a slight cold. There are numerous other modes, far more palpable, of adulteration. The quantity of essential oil to be obtained from roses is very precarious, depending on the skill of the distiller, on the quality of the roses, and the favourableness of the season. The colour of the otter is no criterion of its goodness, quality, or country. The calyxes by no means diminish the quality of otter, nor do they impart any green colour to it. They indeed augment the quantity, but the trouble necessary to strip them is such as to prevent their being often used.

* Vol. 1. 332.

The following is a simpler and less expensive process for preparing this delicate and highly valued perfume; but whether it be equally productive, we know not. A large earthen or stone jar, or a large clean wooden cask is filled with the leaves of the flowers of roses, well picked and freed from the seeds and stalks; and as much spring water as will cover them being poured into the vessel, it is set in the sun in the morning at sunrise and allowed to stand till the evening, when it is removed into the house for the night. In the same way it is to be exposed for six or seven days successively. At the end of the third or fourth day a number of particles of a fine yellow oily matter is seen floating on the surface. These particles in the course of two or three days more collect into a scum, which is the otter of roses. This is taken up by means of cotton tied to the end of a piece of stick, and squeezed with the finger and thumb into a small phial, which is immediately well stopped; and this is repeated for some successive evenings, or while any of this fine essential oil rises to the surface of the water.

It is said that a few drops of this essential oil have at different times been collected in the city of London by distillation, in the same manner as those essential oils which are obtained from other plants.

Rose-Noble, an ancient English gold coin, first struck in the reign of Edward III. It was formerly current at 6s. 8d. and so called because stamped with a rose. See Money.

Rose-Wood. See Aspalathus, Botany *Index*.

ROSETTO, or Rosetta, a town of Africa, in Egypt, is pleasantly situated on the west side of that branch of the Nile called by the ancients *Bolbitinum*, affirmed by Herodotus to have been formed by art; the town and castle being on the right hand as you enter that river. Any one that sees the hills about Rosetto would judge that they had been the ancient barriers of the sea, and conclude that the sea has not lost more ground than the space between the hills and the water.

Rosetto is esteemed one of the pleasantest places in Egypt; it is about two miles long, and consists only of two or three streets. The country about it is most delightful and fertile, as is the whole Delta on the other side of the Nile, exhibiting the most pleasant prospect of gardens, orchards, and corn fields, excellently cultivated. The castle stands about two miles north of the town, on the west side of the river. It is a square building, with round towers at the four corners, mounted with some pieces of brass cannon. The walls are of brick, cased with stone, supposed to have been built in the time of the holy war, though since repaired by Cheyk Begh. At a little distance lower, on the other side of the river, is a platform, mounted with some guns, and to the east of it are the salt lakes, from which great quantities of that commodity are gathered. At some farther distance, sailing up the river, we see a high mountain, on which stands an old building that serves for a watch-tower. From this eminence is discovered a large and deep gulf, in form of a crescent, which appears to have been the work of art, though it be now filled up, and discovers nothing but its ancient bed. Rosetto is a considerable place for commerce, and hath some good manufactures in the linen and cotton way; but its chief business is the carriage of goods to Cairo, all the European merchandise being brought thither from Alexandria by sea, and carried in other boats to that capital; as those that are brought down from it on the Nile are there shipped off for Alexandria; on which account the Europeans

Rosetto. Rosicrucians.

ropeans have here their vice-consuls and factors to transact their business; and the government maintains a beigh, a customhouse, and a garrison, to keep all safe and quiet.

In the country to the north of Rossetto are delightful gardens, full of orange, lemon and citron trees, and almost all sorts of fruits, with a variety of groves of palm-trees; and when the fields are green with rice, it adds greatly to the beauty of the country. It is about 25 miles north-east of Alexandria, and 100 north-west of Cairo. E. Long. 30. 45. N. Lat. 31. 30.

ROSICRUCIANS, a name assumed by a sect or cabal of hermetical philosophers; who arose, as it has been said, or at least became first taken notice of, in Germany, in the beginning of the fourteenth century. They bound themselves together by a solemn secret, which they all swore inviolably to preserve; and obliged themselves, at their admission into the order, to a strict observance of certain established rules. They pretended to know all sciences, and chiefly medicine; whereof they published themselves the restorers. They pretended to be masters of abundance of important secrets, and, among others, that of the philosopher's stone; all which they affirmed to have received by tradition from the ancient Egyptians, Chaldeans, the Magi and Gymnosophists. They have been distinguished by several names, accommodated to the several branches of their doctrine. Because they pretend to protract the period of human life, by means of certain nostrums, and even to restore youth, they were called *Immortales*; as they pretended to know all things, they have been called *Illuminati*; and because they have made no appearance for several years, unless the sect of Illuminated which lately started up on the continent derives its origin from them, they have been called the *Invisible brothers*. Their society is frequently signed by the letters F. R. C. which some among them interpret *fratres roris cœli*; it being pretended, that the matter of the philosophers stone is dew concocted, exalted, &c. Some, who are no friends to free-masonry, make the present flourishing society of free-masons a branch of Rosicrucians; or rather the Rosicrucians themselves, under a new name or relation, viz. as retainers to building. And it is certain, there are some free-masons who have all the characters of Rosicrucians; but how the æra and original of masonry (see MASONRY), and that of Rosicrucianism, here fixed from Naudæus, who has written expressly on the subject, consist, we leave others to judge.

Notwithstanding the pretended antiquity of the Rosicrucians, it is probable that the alchemists, Paracelsists, or fire-philosophers, who spread themselves through almost all Europe about the close of the sixteenth century, assumed about this period the obscure and ambiguous title of Rosicrucian brethren, which commanded at first some degree of respect, as it seemed to be borrowed from the arms of Luther, which were a cross placed upon a rose. But the denomination evidently appears to be derived from the science of chemistry. It is not compounded, says Mosheim, as many imagine, of the two words *rosa* and *crux*, which signifies rose and cross, but of the latter of these words, and the Latin *ros*, which signifies dew. Of all natural bodies, dew was deemed the most powerful dissolvent of gold; and the cross, in the chemical language, is equivalent to light, because the figure of a cross + exhibits, at the same time, the three letters of which the word *lux*, or light, is compounded. Now *lux* is called, by this sect, the seed or menstruum of the red dragon, or, in other words, that gross and corporeal light which when properly digested and modified, produces gold. Hence it follows, if this etymology be admitted, that a Rosicrucian philosopher is one who, by the intervention and assistance of the dew, seeks for light, or in other words, the substance called the philosopher's stone. The true meaning and energy of this denomination did not escape the penetration and sagacity of Gassendi, as appears by his *Examen Philosophiæ Fluddanæ*, sect. 15. tom. iii. p. 261. And it was more fully explained by Renaudot, in his *Conferences Publiques*, tom. iv. p. 87.

Rosicrucians. || Roskild.

At the head of these fanatics were Robert Fludd, an English physician, Jacob Behmen, and Michael Mayer; but if rumour may be credited, the present Illuminated have a head of higher rank. The common principles, which serve as a kind of centre of union to the Rosicrucian society, are the following: They all maintain, that the dissolution of bodies, by the power of fire, is the only way by which men can arrive at true wisdom, and come to discern the first principles of things. They all acknowledge a certain analogy and harmony between the powers of nature and the doctrines of religion; and believe that the Deity governs the kingdom of grace by the same laws with which he rules the kingdom of nature; and hence they are led to use chemical denominations to express the truths of religion. They all hold, that there is a sort of divine energy, or soul, diffused through the frame of the universe, which some call the *archeus*, others the *universal spirit*, and which others mention under different appellations. They all talk in the most superstitious manner of what they call the signatures of things, of the power of the stars over all corporeal beings, and their particular influence upon the human race, of the efficacy of magic, and the various ranks and orders of dæmons.—These dæmons they divide into two orders, *sylphs* and *gnomes*; which supplied the beautiful machinery of Pope's Rape of the Lock. In fine, the Rosicrucians and all their fanatical descendants agree in throwing out the most crude incomprehensible notions and ideas, in the most obscure, quaint, and unusual expressions.—Mosh. Eccl. Hist. vol. iv. p. 266, &c. English edition, 8vo. See BEHMEN and THEOSOPHISTS.

ROSIER. See PILATRE.

ROSIERS-AUX-SALINES, a town of France, in the department of Meurthe, famous for its salt-works. The works that King Stanislaus made here are much admired. It is seated on the river Meurthe, in E. Long. 6. 27. N. Lat. 48. 35.

ROSKILD, formerly the royal residence and metropolis of Denmark, stands at a small distance from the bay of Isefiord, not far from Copenhagen. In its flourishing state it was of great extent, and comprised within its walls 27 churches, and as many convents.—Its present circumference is scarcely half an English mile, and it contains only about 1620 souls. The houses are of brick, and of a neat appearance. The only remains of its original magnificence are the ruins of a palace and of the cathedral, a brick building with two spires, in which the kings of Denmark are interred. Little of the original building now remains. According to Holberg, it was constructed of wood, and afterwards

terwards built with stone, in the reign of Canute.—From an inscription in the choir, it appears to have been founded by Harold VI. who is styled king of Denmark, England, and Norway. Some verses, in barbarous Latin, obscurely allude to the principal incidents of his life; adding, that he built this church, and died in 980.—See Coxe's Travels into Polland, Russia, Sweden, and Denmark, vol. ii. p. 525.

ROSLEY-HILL, a village in Cumberland, with a fair on Whit-Monday, and every fortnight after till Sep. 29. for horses, horned cattle, and linen cloth.

ROSLIN, or ROSKELYN, a place in the county of Mid Lothian in Scotland, remarkable for an ancient chapel and castle. The chapel was founded in 1446, by St Clare, prince of Orkney, for a provost, six prebendaries, and two singing boys. The outside is ornamented with a multitude of pinnacles, and variety of ludicrous sculpture. The inside is 69 feet long, the breadth 34, supported by two rows of clustered pillars, between seven and eight feet high, with an aisle on each side. The arches are obtusely Gothic. These arches are continued across the side-aisles, but the centre of the church is one continued arch, elegantly divided into compartments, and finely sculptured. The capitals of the pillars are enriched with foliage, and a variety of figures: and amidst a heavenly concert appears a cherubim blowing the ancient Highland bagpipes. The castle is seated on a peninsulated rock, in a deep glen far beneath, and accessible by a bridge of great height. This had been the seat of the great family of *Sinclair*. Of this house was Oliver, favourite of James V. and the innocent cause of the loss of the battle of Solway Moss, by reason of the envy of the nobility on account of his being preferred to the command.

Near this place the English received three defeats in one day under John de Segrave the English regent of Scotland in 1302. The Scots, under their generals Cummin and Fraser, had resolved to surprise Segrave; with which view they began their march on the night of Saturday preceding the first Sunday of Lent, and reached the English army by break of day. Segrave, however, had time to have fallen back upon the other division which lay behind him; but either despising his enemies too much, or thinking that he would be dishonoured by a retreat, he encountered the Scots; the consequence of which was, that he himself was made prisoner, and all his men either killed or taken, except such as fled to the other division. As in this routed division there had been no fewer than 300 knights, each of whom brought at least five horsemen into the field, great part of the Scots infantry quickly furnished themselves with their horses; but, as they were dividing the spoils, another division of the English appeared, and the Scots were obliged to fight them also. The English, after a bloody engagement, were defeated a second time; which was no sooner done, than the third and most powerful division made its appearance. The Scots were now quite exhausted; and, pleading the excessive labours they had already undergone, earnestly requested their generals to allow them to retreat while it was yet in their power. Their two generals, who perhaps knew that to be impracticable, reminded them of the cause for which they were fighting, the tyranny of the English, &c. and by these arguments prevailed upon them to fight a third time; though, previous to the engagement, they were reduced to the cruel necessity of putting all the common soldiers whom they had made prisoners to the sword. The victory of the Scots at this time was less complete than the other two had been; since they could not prevent the retreat of the English to Edinburgh, nor Segrave from being rescued from his captivity.

ROSMARINUS, ROSEMARY, a genus of plants belonging to the diandria class, and in the natural method ranking under the 42d order, *Verticillatæ*. See BOTANY *Index*.

ROSS, in Herefordshire, in England, 119 miles from London, is a fine old town, with a good trade, on the river Wye. It was made a free borough by Henry III. and contained 2261 inhabitants in 1811. It is famous for cyder, and was noted in Camden's time for a manufacture of iron-wares. There are in it two charity-schools, which lately have been enriched by a legacy of 200l. per annum from Mr Scott, in Dec. 1786, a second *Man of Ross*. And its market and fairs are well stored with cattle and other provisions. At the west end of it there is a fine broad causeway, constructed by Mr John Kyrle, the celebrated *Man of Ross*, who also raised the spire upward of 100 feet, and inclosed a piece of ground with a stone wall, and sunk a reservoir in its centre, for the use of the inhabitants of the town. He died in 1714, aged 90, with the blessing of all who knew him, both rich and poor. The banks of the Wye, between this town and Monmouth, are extremely pleasant. W. Long. 2. 25. N. Lat. 51. 56.

ROSSANO, a strong town of Italy, in the kingdom of Naples, and in the Hither Calabria, with an archbishop's see, and the title of a principality. It is pretty large, well peopled, and seated on an eminence, surrounded with rocks. There is nothing in this archiepiscopal city that claims much notice; the buildings are mean, the streets vilely paved and contrived. The number of inhabitants does not exceed 6000, who subsist by the sale of their oil, the principal object of their attention, though the territory produces a great deal of good wine and corn.

Rossano probably owes its origin to the Roman emperors, who considered it as a post equally valuable for strength and convenience of traffic. The Marsans, a family of French extraction, possessed this territory, with the title of prince, from the time of Charles II. to that of Alphonsus II. when the last male heir was, by that prince's order, put to death in Ischia, where he was confined for treason. It afterwards belonged to Bona queen of Poland, in right of her mother Isabella, daughter to Alphonsus II. and at her decease returned to the crown. It was next in the possession of the Aldobrandini, from whom the Borghesi inherited it. So late as the 16th century, the inhabitants of this city spoke the Greek language, and followed the rites of the eastern church. Here was formerly the most celebrated rendezvous of the Basilian monks in Magna Græcia. E. Long. 16. 52. N. Lat. 39. 45.

ROS SOLIS, *Sun dew*, an agreeable spirituous liquor, composed of burnt brandy, sugar, cinnamon, and milk-water; and sometimes perfumed with a little musk. It has its name from being at first prepared wholly of the juice of the plant ros solis, or drosera. See DROSERA, BOTANY *Index*.

ROSS-SHIRE is the most extensive county in Scotland,

Ross-shire.

land, measuring about 80 miles in length by almost as much in breath, and contains 1,776,000 square acres. It is even more extensive than any county of England, if we except Yorkshire, and contains in it the island of Lewis, which is one of the Hebrides, or Western Isles. The county of Sutherland is the northern boundary of Ross; on the east it is bounded by the county of Cromarty and the ocean; on the south by the shire of Inverness; and on the west by the ocean.

Ross-shire is very fertile in corn, and its eastern coast, which is ornamented with different country seats inhabited by the proprietors, has always been regarded as constituting a part of the Lowlands of Scotland; but the western parts rise into mountains, and properly form part of the Highlands, where the vernacular tongue is the Erse or Gaelic.

Among the different waters which are met with in this county, we may mention the friths of Dornoch and Cromarty, the latter of which stretches far into the land from the Moray frith. The river Ockel, which has its source in the parish of Assint in Sutherlandshire, is one of the chief streams of Ross; and after a course of more than 40 miles, discharges itself into the head of the frith of Dornoch. The river Conan bends its course towards the east coast, and empties itself into the most inland part of the frith of Cromarty. It contains abundance of salmon, and pearls at one period were found not far from its mouth. The frith of Beauly constitutes the boundary of Ross with Inverness-shire; and this, together with those of Dornoch and Cromarty, are of considerable importance, as they afford access to a great part of it by means of water carriage. Between the friths of Moray and Cromarty, the coast is bold and rocky, abounding with dreadful precipices and highly romantic views. Along the shore there are numerous caves hollowed out by the hand of nature, some of them extremely deep, and one in particular runs entirely through the rock, a distance of about 150 feet. There are also natural caves on the north side of the frith of Cromarty, some of which, it is said, are of such vast dimensions as to be able to contain about 600 men. From their upper parts there are drops of water continually distilling, and by the petrifaction thus gradually accomplished, their appearance above resembles the finest marble. In these a variety of birds take up their residence, and pigeons bring forth their young.

The western coast is deeply indented with arms of the sea called bays, or otherwise lochs; among which are great and little Loch Broom, to the southward of which there is a fresh water lake of considerable extent, known by the name of loch Mari, in the parish of Gairloch. It is about 16 miles long, but its breadth varies considerably. It contains 24 small islands, which are decorated with fir and other trees. We find the ruins of a druidical edifice on the large island called Mari, round which there is a burying ground made use of by the inhabitants on the north side of Loch Mari as a place of interment.

The cod-fishing has been long established at Gairloch, in the same vicinity; nearly 40,000 cod being annually sent to market by a single proprietor. It has also been long celebrated, as well as Loch-Broom, for the herring fishery. In the parish of Loch Alsh there are extensive banks of corals, which have been found, upon trial, to be valuable manure.

In the level parts of the country between the mountains there are numerous lakes adorned with delightful scenery, and some of them measuring not less than three miles in length. This county is almost wholly mountainous, yet even here we find some which are more memorable than others, and very much calculated to arrest the attention. Tulloch Ard is a mountain of great height, and becomes remarkable on account of the use which was made of it in ancient times. At the commencement of hostilities with any enemy, a barrel of burning tar might be seen flaming from its summit, which was the established signal, in consequence of which the tenants and vassals of Seaforth appeared at the castle of St Donan in twenty-four hours, completely equipped for marching against the foe. The arms of that honourable family have this mountain for a crest. Ben-Uaish, in the parish of Kiltearn, rears its summit above the rest of the mountains, and may be seen across the Moray frith, from the counties of Elgin and Banff. It is constantly covered with snow, from which the family of Foulis must give, if demanded, to his Britannic majesty on any day of the year, a snowball as quit-rent for its tenure of the forest of Uaish. There is plenty of heath and grass around its base, which affords excellent pasture for cattle.

The county of Ross contains 82 proprietors of land, 7 of whom are of the first class, 3 of the second, 12 of the third, 16 of the fourth, and 44 of the fifth class; the valued rent of all these amounting to 75,040l. 10s. 3d. Scots money, as settled in the reign of Charles I. while the real rent is computed at no less than 38,711l. sterling.

The grains usually cultivated in the shire of Ross are barley, oats, pease and beans, potatoes, and wheat on particular occasions. A great part of the county, however, is converted into grass, owing to the want of markets for the consumption of other productions; and those who adopt this plan find it more for their interest than that which is usually followed in more fortunate situations. The soil in general is good; some of it bears luxuriant crops, and the vast improvements in modern agriculture, if carefully attended to, would make the most unfavourable spots become worthy of cultivation. Lime, marl, and shelly sand, constitute the manure which is used by gentlemen and extensive farmers, while smaller tenants substitute a compost of earth and dung, in the proportion of three loads of the former to one of the latter. The country in general lies open, but the farms of gentlemen and some of the wealthier tenants are inclosed; and such as are so are reckoned one half more valuable than those which are open.

Would proprietors in this county grant their tenants leases for 19 at least, instead of 5 or 7 years, they would hold out a stimulus to industry and improvement which cannot possibly be felt as circumstances now stand. What encouragement has a man to bestow money and labour on the property of another, of which he knows he must be deprived in the course of seven years! The man who holds a farm during such a trifling period, must tear all out of it he can at the least possible expence, and leave it to the proprietor, when he departs, little better than a common.

The proprietors of the county of Ross have of late become very attentive to different species of improvements;

ments; and in the lower parts of it we meet with excellent roads, as well as bridges built over every rivulet of any extent whatever, which facilitate travelling, and render it agreeable. The moors which once exhibited nothing but sterility, are now covered with firs; while pines, with different species of timber, surround their houses. The fir, elm, oak, and beech, are found to thrive in this county, as well as various kinds of fruit trees, not even excepting apricots, peaches, and plums. In the central district of Ross still remains the extensive forest of Fainish, about 20 miles in length. The western district is very extensive; but its general aspect is by no means inviting. From the top of a mountain a stranger sees nothing around him but a desolate and dreary region, vast piles of rocky mountains with forked summits; yet interspersed among these are many beautiful and fertile vales, exhibiting, however, a great variety of soil, owing to the peculiarity of their situation.

The climate may be said to be as unequal as the face of the country itself, since no two days in succession can at all be depended on at any given period of the year. Indeed the seasons may not improperly be regarded as always wet, and the lower classes of the inhabitants especially consider almost every thing as an indication of rain. If mist settle on the tops of the hills; if the clouds be heavy; if a crow chatter, or if the day be hot or cold, rain, in the judgment of a Highlander, may be assuredly expected to follow. From thus having what some have denominated a weeping climate, it is easy to see that it must be much better adapted for pasturage than agriculture; yet invincible patience, perseverance, and a competent knowledge of husbandry, have, in many parts of it, surmounted the obstacles that such a climate must ever throw in the way of improvement.

The mineral productions are not very abundant, but some of them are of considerable importance in the arts and manufactures. Here there is plenty of freestone, and different species of limestone, some of which are of the nature of marble. Marl is also to be met with, and ironstone in great abundance. A copper mine in the northern district of the parish of Applecross, has been considered by Williams, in his Mineral Kingdom, as equally rich with any mine of the same metal to be met with in the British empire. There is a rich ore of iron in the parish of Alness; and in the same vicinity there is a vein of lead, containing a large proportion of silver. Indications of lead ore have likewise been met with in the parish of Kiltearn. There is a chalybeate spring near the store-house of Foulis, the good effects of which were experienced many years ago; but of the medical properties of the spring at Tienleod, known by the name of St Colman's Well, we have no certain accounts, although the votaries of superstition have frequently drunk of its waters, and then suspended some rags from the branches of the surrounding trees, as an oblation to the saint.

This county contains three royal boroughs, viz. Tain, Dingwall, and Fortrose, a description of which will be found in this work, in the order of the alphabet, as well as of Lewis, one of the Hebrides, and its chief town Stornoway, which have sometimes been taken notice of in a general description of Ross-shire, although wholly detached from it.

In this county there are many remains of antiquity, the most memorable of which we shall here enumerate. There is a Druidical circle or temple on the eastern part of the county, and parish of Kiltearn, consisting of twelve large stones placed perpendicularly, and so arranged as to form two ovals, which are united together, and having equal areas, measuring 13 feet each from east to west, and ten feet in the middle from north to south.

There is a large obelisk in the parish of Nigg, with figures of different animals on one side of it, and a cross on the other, executed with considerable taste. The former is conjectured to be of greater antiquity than the latter. According to tradition, it was erected to perpetuate a shipwreck suffered by the Danes, at which time three sons of the king of Denmark are supposed to have perished, and to have been interred in the place on which the obelisk stands. In the churchyard of Nigg there once stood another of a similar nature, likewise supposed to have been erected by the Danes, which in consequence of a violent wind was thrown down about the year 1725. The sculpture is still in a state of tolerable preservation, and resembles that which is found on the other monuments left by that people in different parts of Scotland.

Craigchenichan in the parish of Kincardine, is memorable for being the place where the celebrated marquis of Montrose fought his last battle, when he was defeated by Colonel Strachan. Having swimmed across the Kyle, he lay for some time concealed in Assint; but on being discovered, he was apprehended, and sent prisoner to Inverness. The ground on which the battle was fought derived its name from the issue of that interesting day; for the signification of Craigchenichan is, the *Rock of Lamentation*. There is still seen in the parish of Avoch, the foundation of a large castle of great antiquity, on the summit of a hill in the neighbourhood of Castletown Point, elevated about 200 feet above the level of the sea. Some people call this Ormondy hill; and tradition has given the name of Douglas castle to the ruins. It covers a space of ground in the form of a parallelogram, the longest sides of which measure 350, and the shortest 160 feet, so that the whole area contains upwards of 6300 square yards.

According to tradition, there are many places in the eastern district of this county where bloody battles were fought, either with the invading Danes and Norwegians, with daring plunderers, or between rival clans, who bitterly contended for superiority. Large collections of stones, called *cairns*, direct the traveller to the spots where the remains of the dead were deposited, who had fallen in the field of battle. There are manifest indications of an encampment on a large plain to the westward of the church of Eddertown, where a battle is said to have been fought with the invading Danes. In its vicinity there is an extensive circle of earth, about two feet higher than the circumjacent ground, being flat at the top, with an obelisk in the centre about 10 feet in height, on which a number of rude figures may still be traced. This is regarded as the tomb of some Danish prince.

The abbey and castle of Lochlin are the most remarkable remains of antiquity in the parish of Fearn, the former of which is said to have been first built of mud, but afterwards constructed of more durable materials.

terials. It measured 99 feet in length within walls, was 25 feet six inches broad, and its walls were 24 feet in height. This abbey continued to be employed as a place of worship till the month of October 1742, at which time the roof fell in during divine service, and 36 persons are said to have lost their lives by this melancholy accident. The castle of Lochlin is supposed to be more than five centuries old. It is situated on an eminence about six miles to the eastward of Tain, and seems evidently to have been erected as a place of security against the sudden incursions of any invading enemy. Its form resembles that of a double square united at the angles, in which union there is a staircase leading to the top of it, which is about 60 feet in height. The squares are not of equal and similar dimensions, the one towards the west measuring 20, and the other towards the east about 38 feet every way, fortified with three turrets of such dimensions, that any one of them can contain three or more men with ease. The castle of Cadboll, of which few remains can now be traced, is supposed to be more ancient than that of Lochlin, deriving all its interests from a singular tradition, viz. that no person ever died in it, though inhabited for ages;—a circumstance, however, which may be satisfactorily accounted for without recurring to the marvellous. Many of the inhabitants becoming weary of life, requested to be removed; and a lady May in particular, whose residence it was about 100 years before the present period, and whose lingering diseases made her long for death, begged that she might be carried out of it, which was at last granted in consequence of her importunity; and we are told that after her removal she instantly expired. The cave or subterraneous dwelling in the district of Applecross, is considered by many, and with great probability, as the quondam magazine of plunder, rather than the habitation of men; and perhaps the same may be said of every other place of a similar nature to be met with in this county. The castle of Donan in the peninsula of Kintail, which is now in ruins, was probably built in the reign of Alexander III. of Scotland, with a view to oppose the incursions of the Danes. It was demolished by a ship of war in the year 1719, after the battle of Glenshiel, a mile above which some of the bullets fired against it are occasionally found, employed by the people as weights in selling butter and cheese.

The chief clans in Ross-shire are the Mackenzies, Rosses, Frazers, Mackays, Macraes, and the Munroes, all of whom speak Gaelic, and wear the Highland dress, esteeming the earl of Seaforth as their head, being the lineal descendant of Mackenzie Lord Seaforth, who was attainted for his concern in the rebellion. This county contains 30 parochial districts, sends one member to the British parliament, and by a census taken in 1801, it was found to contain 52,291 inhabitants, being an increase of 9798 since the return to Dr Webster in 1755. In 1811 the population was about 57,000. The following table exhibits a view of the population of this county according to its parishes at two different periods.

	Parishes.	Population in 1755.	Population in 1790—1798.
1	Alness	1090	1121
	Applecross	835	1734
	Avoch	1457	1318
	Contin	1949	2500
5	Dingwall	1030	1379
	Eddertown	780	1000
	Fearn	1898	1600
	Gairloch	2050	2200
	Glenshiel	509	721
10	Killearnan	945	1147
	Kilmuir, Easter	1095	1975
	——— Wester	1367	1805
	Kiltearn	1570	1616
	Kincardine	1743	1600
15	Kintail	698	840
	Kirkmichael	1371	1234
	Lochalsh	613	1334
	Lochbroom	2211	3500
	Lochcarron	771	1068
20	Logie, Easter	850	1125
	Nigg	1261	1133
	Rosekeen	1958	1700
	Rosemarkie	1140	1262
	Tain	1870	2100
25	Urquhart	2590	2901
	Urray	2456	1860
	Island of Lewis.		
	Barvas	1995	2006
	Lochs	1267	1768
	Stornoway	1812	2639
30	Uig	1312	1898
	Total,	42,493	50,146

See Ross-shire Supplement.

ROSTOCK, a town of Germany, in the circle of Upper Saxony, and duchy of Mecklenburg, with an university and a very good harbour. It is the best town in this country; and has good fortifications, with an arsenal. It was formerly one of the Hanseatic towns; it contained about 12,000 inhabitants in 1800. It is seated on a lake where the river Varne falls into it, and carries large boats. The government was formerly in the hands of 24 aldermen, elected out of the nobility, university, and principal merchants, who were called the Upper House, and a common council of 100 inferior citizens, who were summoned to give their advice upon extraordinary emergencies. The principal things worth seeing are the fortifications, the prince's palace, the stadthouse, the arsenal, and the public library. The town is famous for good beer, which they export in great quantities. Some years ago they had no less than 250 privileged brewers, who, it is said, brewed so many thousand tuns a-year, besides what particular persons brew for their own use. E. Long. 12. 55. N. Lat. 54. 8.

ROSTOFF, or Rostow, a large town of the Russian empire, in the government of Javoslaf, with an archbishop's see, seated on the lake Coteri, in E. Long. 40. 25. N. Lat. 57. 5.

ROSTRA, in antiquity, a part of the Roman forum, wherein orations, pleadings, funeral harangues, &c. were delivered.

ROSTRUM, literally denotes the beak or bill of a bird; and hence it has been figuratively applied to the beak or head of a ship.

ROSYCRUCIANS. See Rosicrucians.

ROT, a very fatal disease incident to sheep, arising from wet seasons, and too moist pasture. It is very difficult

ficult of cure, and is attended with the singular circumstance of a kind of animals being found in the blood-vessels. See SHEEP, diseases of, under FARRIERY.

ROTA, the name of an ecclesiastical court of Rome, composed of 12 prelates, of whom one must be a German, another a Frenchman, and two Spaniards; the other eight are Italians, three of whom must be Romans, and the other five a Bolognese, a Ferraran, a Milanese, a Venetian, and a Tuscan.—This is one of the most august tribunals in Rome, which takes cognizance of all suits in the territory of the church, by appeal; as also of all matters, beneficiary and patrimonial.

ROTA ARISTOTELICA, or *Aristotle's Wheel*, denotes a celebrated problem in mechanics, concerning the motion or rotation of a wheel about its axis, so called because Aristotle was the first who took notice of it.

The difficulty of it may be represented in the following manner. While the circle makes one revolution on its centre, advancing at the same time in a right line along a plane, it describes on that plane a right line which is equal to its circumference. Now, if this circle carry with it another smaller circle, concentric with it, like the nave of a coach wheel; then this smaller circle or nave, will describe a line in the time of the revolution which shall be equal to that of the large wheel or circumference itself because its centre advances in a right line, as fast as that of the wheel does, being in reality the same with it.

Aristotle attempted to solve this problem, but his solution can only be regarded as a good account of the difficulty.

It was next attempted by Galileo, who had recourse to an infinite number of infinitely small vacuities in the right line described by the two circles, and imagined that the little circle never applies its circumference to those vacuities; but in reality only applies it to a line equal to its own circumference, though it appears to have applied it to a much larger. This, however, is nothing to the purpose.

According to Tacquet, the little circle making its rotation more slowly than the great one, does, on that account, describe a line longer than its own circumference; yet without applying any point of its circumference to more than one point of its base. This is no more satisfactory than the former.

After the fruitless endeavours of many great men, M. Dortous de Meyran, a French gentleman, had the good fortune to hit upon a solution which, after being fully examined by a committee of the Academy of Sciences, was declared to be satisfactory. The following is his solution.

The wheel of a coach is only acted on, or drawn in a right line; its rotation or circular motion arises purely from the resistance of the ground. Now this resistance is equal to the force which draws the wheel in a right line, as it defeats that direction and therefore the causes of the two motions are equal. The wheel therefore describes a right line on the ground equal to its circumference.

On the contrary, the nave is drawn in a right line by the same force as the wheel, but it only turns round because the wheel does so, and can only turn in the same time with it. Hence, its circular velocity is less than that of the wheel, in the ratio of the two circumferences, and therefore its circular motion is less than the rectilinear one. Since it must describe a right line equal to that of the wheel, it can only do it by partly sliding and partly revolving the sliding part being more or less as the nave itself is smaller or greater.

ROTACEÆ (from *rota*, "a wheel"), the name of the 20th order in Linnæus's Fragments of a Natural Method; consisting of plants with one flat, wheel-shaped petal without a tube. See BOTANY.

ROTALA, a genus of plants belonging to the triandria class. See BOTANY *Index*.

ROTANG. See CALAMUS.

ROTATION.

1 Definition and interesting nature of the subject.

ROTATION, is a term which expresses the motion of the different parts of a solid body round an axis, and distinct from the progressive motion which it may have in its revolution round a distant point. The earth has a rotation round its axis, which produces the vicissitudes of day and night; while its revolution round the sun, combined with the obliquity of the equator, produces the varieties of summer and winter.

The mechanism of this kind of motion, or the relation which subsists between the intensity of the moving forces, modified as it may be by the manner of application, and the velocity of rotation, is highly interesting, both to the speculative philosopher and to the practical engineer. The precession of the equinoxes and many other astronomical problems of great importance and difficulty, receive their solutions from this quarter: and the *actual performance* of our most valuable machines cannot be ascertained by the mere principles of equilibrium, but require a previous acquaintance with certain general propositions of rotatory motion.

It is chiefly with the view of assisting the engineer that we propose to deliver in this place a few fundamental propositions; and we shall do it in as familiar and popular a manner as possible, although this may cause the application of them to the abstruse problems of astronomy to be greatly deficient in the elegance of which they are susceptible.

2 State of the particles in moving round an axis.

When a solid body turns round an axis, retaining its shape and dimensions, every particle is actually describing a circle round this axis, and the axis passes through the centre of the circle, and is perpendicular to its plane. Moreover, in any instant of the motion, the particle is moving at right angles with the radius vector, or line joining it with *its* centre of rotation. Therefore, in order to ascertain the direction of the motion of any particle P (fig. 1.), we may draw a straight line PC from the particle perpendicular to the axis AB of rotation.

Plate CCCCLX fig. 1

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tation. This line will lie in the plane of the circle P *m n* of rotation of the particle, and will be its radius vector; and a line PQ drawn from the particle perpendicular to this radius vector will be a tangent to the circle of rotation, and will have the direction of the motion of this particle.

3 The whole body being supposed to turn together, it is evident, that when it has made a complete rotation, each particle has described a circumference of a circle, and the whole paths of the different particles will be in the ratio of these circumferences, and therefore of their radii; and this is true of any portion of a whole turn, such as $\frac{1}{2}$, $\frac{1}{4}$, or 20 degrees, or any arch whatever; therefore the velocities of the different particles are proportional to their radii vectores, or to their distances from the axis of rotation.

And, lastly, all these motions are in parallel planes, to which the axis of rotation is perpendicular.

5 How the rotation of different bodies in respect of velocity may be compared.

When we compare the rotations of different bodies in respect of velocity, it is plain that it cannot be done by directly comparing the velocity of *any* particle in one of the bodies with that of *any* particle of the other; for as all the particles of each have different velocities, this comparison can establish no ratio. But we familiarly compare such motions by the number of complete turns which they make in equal times, and we say that the second hand of a clock turns 60 times faster than the minute hand; now this comparison is equally just in any part of a turn as in the whole. While the minute hand moves round one degree, the second-hand moves 60; therefore, as the length or number of feet in the line uniformly described by a body in its progressive motion is a proper measure of its progressive velocity, so the number of degrees described by *any* particle of a whirling body in the circumference of its circle of rotation, or the angle described by *any* radius vector of that body, is a proper measure of its velocity of rotation. And in this manner may the rotation of two bodies be compared; and the velocity is with propriety termed ANGULAR VELOCITY.

6 An angle is directly as the length of the circumference on which it stands, and inversely as the radius of the circle, and may be expressed by the fraction of which the numerator is the arch, and the denominator the radius. Thus the angle PC *p* may be expressed by $\frac{Pp}{PC}$. This fraction expresses the portion of the radius which is equal to the arch which measures the angle; and it is converted into the usual denomination of degrees, by knowing that one degree, or the 360th part of the circumference, is $\frac{1}{57.296}$ of the radius, or that an arch of 57.296 degrees is equal to the radius.

7 Effects, &c. of the several particles connected in one body on each other.

When a solid body receives an impulse on any one point, or when that point is anyhow urged by a moving force, it cannot move without the other points also moving. And whatever is the motion of any particle, that particle must be conceived as urged by a force precisely competent to the production of that motion, by acting immediately on the particle itself. If this is not the particle immediately acted on by the external force, the force which really impels it is a force arising from the cohesion of the body. The particle immediately impelled by the external force is pressed towards its neighbouring particles, or is drawn away from them; and, by this change of place, the connecting forces are brought into action, or are excited; they act on the particles adjoining, and change, or tend to change, their distances from the particles immediately beyond them; and thus the forces which connect this next series of particles are also excited, and another series of particles are made to exert their forces; and this goes on through the body till we come to the remote particle, whose motion we are considering. The forces which connect it with the adjoining series of particles are excited, and the particle is moved. We frequently say that the external moving force is propagated through the body to the distant particle; but this is not accurate. The particle is really and immediately moved by the forces which connect it with those adjoining. It will greatly assist our conception of the manner in which motion is thus produced in a distant particle, if we consider the particles as so many little balls, connected with each other by slender spiral springs like cork-screws. This would compose a mass which would be compressible, or which could be stretched, &c. And if we give an impulse to one of these balls, we shall set the whole assemblage in motion round any axis which we may suppose to support it. Now any one of these balls is really and immediately moved by the elasticity of the spiral wires which join it to its neighbours.

8 The forces by which the particles of bodies act on each other are equal, and the consequences.

We are but little acquainted with the nature of these connecting forces. It can be learned only by the phenomena which are their effects. These are various, almost beyond description; but the mechanical philosopher has little to do with this variety. The distinctions which are the immediate causes of fluidity, of hardness, softness, elasticity, ductility, are not of very difficult conception. There is one general fact which is sufficient for our present purpose—the forces by which the particles of bodies act on each other are equal. This is a matter of unexcepted experience; and no other foundation can be given to it as a law of mechanical nature.

9 An immediate consequence of this law is, that when two external forces A and B are in equilibrium by the intervention of a solid body (or rather when a solid body is in equilibrium between two external forces), these forces are equal and opposite; for the force A is in fact an immediate equilibrium with the opposite forces exerted by the particle to which it is applied, and is therefore equal and opposite to the force resulting from the combination of all the forces which connect that particle with the series of particles immediately adjoining. This resulting force may with propriety be called the equivalent of the forces from the combination of which it results. The use of this term will greatly abbreviate language. This first set of connecting forces consists of a number of distinct forces corresponding to each particle of the series, and each force has an equal and opposite force corresponding to it: therefore the compound force by which the first series of particles acts on that to which the external force A is applied, is equal and opposite to the compound force which connects this first series with the next series. And the same thing must be said of each succeeding series of particles, till we come at last to the particle to which the external force B is immediately applied. The force exerted by this particle is equal and opposite to that external

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ternal force; and it is equal to the compound force exerted by the second series of particles on that side; therefore the forces A and B are equal and opposite.

10 It results from this proposition, that *when any number of external forces are applied to a solid body, and it is in equilibrio between them, they are such as would be in equilibrio if they were all applied to one point.* Let the forces a A, b B, c C (fig. 2.), be applied to three particles of the solid body. Therefore a A is immediately in equilibrium with an equal and opposite force, A α, resulting from the composition of the force AD, which connects the particles A and B, and the force AE which connects A with C. In like manner b B is immediately in equilibrio with B β, the equivalent of the forces BF and BG; and c C is in immediate equilibrio with the equivalent C $\varkappa$ of the forces CH and CI. We shall conceive it very clearly if we suppose the three forces A a, B b, C c, to be exerted by means of threads pulling at the solid body. The connecting parts between A and B, as also between A and C, are stretched. The lines AB and AC may be considered as elastic threads. Each thread is equally stretched through its whole length; and therefore if we take AD to represent the force with which the particle A is held back by the particle B, and if we would also represent the force with which B is held back by A, we must make BF equal to AD. Now (N° 9.), the forces AD and BF are equal and opposite; so are the forces AE and CI; so are the forces CH and BG. Now it is evident, that if the six forces AD, BF, BG, CH, CI, AE, were applied to one particle the particle would be in equilibrio; for each force is accompanied by an equal and opposite force: and if the force A α were applied in place of AD, AE, the equilibrium would remain, because A α is equivalent to AD and AE. The same is true of B β and C $\varkappa$. Therefore if the three forces A α, B β, C $\varkappa$. were applied to one point, they would be in equilibrio. Consequently if the three forces a A, b B, c C, which are respectively equal and opposite to A α, B β, C $\varkappa$, are so applied, they will be in equilibrio. It is plain that this demonstration may be extended to any number of forces.

Fig. 2.

We may just remark by the bye that if three forces are thus in equilibrio, they are acting in one plane; and, if they are not parallel, they are really directed to one point: for any one of them must be equal and opposite to the equivalent of the other two; and this equivalent is the diagonal of a parallelogram, of which the other two are the sides, and the diagonal and sides of any parallelogram are in one plane; and since they are in one plane, and any one of them is in equilibrio with the equivalent of the other two, it must pass through the same point with that equivalent, that is, through the point of concourse of the other two.

These very simple propositions are the foundation of the whole theory of statics, and render it a very simple branch of mechanical science. It has been made abstruse by our very attempts to simplify it. Many elaborate treatises have been written on the fundamental property of the lever, and in them all it has been thought next to an insuperable difficulty to demonstrate the equilibrium of a straight lever when the parallel forces are inversely as their distances from the fulcrum.

11 Mechanical science has been rendered abstruse by attempts at simplification.

We think the demonstrations of Archimedes, Fonsenex, D'Alembert, and Hamilton, extremely ingenious; but they only bring the mind into such a state of conception that it cannot refuse the truth of the proposition; and, except Mr Hamilton's, they labour under the disadvantage of being applicable only to commensurable distances and forces. Mr Vince's, in the Philosophical Transactions for 1794, is the most ingenious of them all; and it is wonderful that it has not occurred long ago. The difficulty in them all has arisen from the attempt to simplify the matter by considering a lever as an inflexible straight line. Had it been taken out of this abstract form, and considered as what it really is, a natural body, of some size, having its particles connected by equal and opposite forces, all difficulty would have vanished.

12 Mode of conceiving the magnitude of an moving force.

That we may apply these propositions to explain the motion of rotation, we must recollect an unquestionable proposition in dynamics, that the force which produces any motion is equal and opposite to the force which would prevent it, when applied in the same place and in the same line, or which would extinguish it in the same time in which we suppose it to be produced. Therefore the force which is excited and made to act on any particle of a body by the action of an external force on another particle, so as to cause it to move round an axis, is equal and opposite to the force which, when applied to that particle in the opposite direction, would be in equilibrio with the external force.

13 The only distinct notion we can form of the magnitude of any moving force is the quantity of motion which it can produce by acting uniformly during some given time. This will be had by knowing the velocity which it will produce in a body of known bulk. Thus we know that the weight of ten pounds of matter acting on it for a second will cause it to fall 16 feet with an uniformly accelerated motion, and will leave it in a state such that it would move on for ever at the rate of 32 feet in a second; which we call communicating the velocity of 32 feet per second. In the same manner, the best way of acquiring a distinct conception of the rotatory effort of a moving force, is to determine the quantity of rotatory motion which it can produce by acting uniformly during some known time.

14 And of the quantity and effort of rotatory motions.

Let a solid body turn round an axis passing through the point C (fig. 3.) perpendicular to the plane of this figure. Let this rotation be supposed to be produced by an external force acting in the direction FP. Let this force be such, that if the body were free, that is, unconnected with any axis supported by fixed points, it would, by acting uniformly during a small moment of time, cause its centre of gravity G (A) to describe a line of a certain length parallel to FP. This we know to

Fig. 3.

(A) We take this term in its usual sense, as expressing that point where the sum of the *equal* gravitations of each particle may be supposed united. It is by no means (though commonly supposed) the point where the equivalent of the real gravitations of the particles may be supposed to act, and to produce the same motion as when acting

to be the effect of a moving force acting on any solid body in free space. The centre of gravity will always describe a straight line. Other particles may chance to move differently, if the body, besides its progressive motion, has also a motion of rotation, as is generally the case. Draw GI parallel to FP, and make GI to GC as the velocity which the external force would communicate to the centre of the body (if moving freely, unconnected with a supported axis), to the velocity which it communicates to it in the same time round the axis C c. Also let m be the number of equal particles, or the quantity of matter in the body. Then m GI will express the quantity of motion produced by this force, and is a proper measure of it as a moving force; for GI is twice the space described during the given time with an uniformly accelerated motion.

15 But since the body cannot move any way but round the axis passing through C, the centre G will begin to move with the velocity and in the direction, GH, perpendicular to the line CG (N° 2.). And any particle A can only move in the direction AL, perpendicular to CA. Moreover, the velocities of the different particles are as their radii vectores; and CG is actually equal to the line GH, which expresses the velocity of a particle in G. Therefore CA will in like manner express the velocity of the particle A. If A express its quantity of matter, A.CA will express its quantity of motion, and will represent the force which would produce it by acting uniformly during the moment of time.

16 We expressed the external moving force by m.GI. Part of it is employed in exciting the force A.CA, which urges the particle A. In order to discover what part of the external force is necessary for this purpose, draw CP perpendicular to FP. The preceding observations show us, that the force wanted at A is equal to the force which, when applied at P in the direction FP, would balance the force A.CA applied to A in the direction LA. Therefore (by the property of the lever ACP, which is impelled at right angles at A and P) we must have CP to CA as the force A.CA to the balancing pressure, which must be exerted at P, or at any point in the line FP. This pressure is therefore $\frac{A.CA.CA}{CP}$ or $\frac{A.CA^2}{CP}$. As we took m.GI for the measure of the whole external force, GI being the velocity which it would communicate to the whole body moving in free space, we may take G i for the velocity which would be communicated to the whole body by the pressure $\frac{A.CA^2}{CP}$, and then this pressure will be properly expressed by m.G i. In like manner, mak may express the portion of the external force employed in communicating to another particle B the motion which it acquires; and so on with respect to all the particles of the body.

It must be desirable to see the manner in which the forces are really concerned in giving motion to the different particles.

Suppose the external force to act immediately on the external particle F. The line FC connecting this particle with the axis in C is either stretched or compressed by the effort of giving motion to a remote particle A. It is plain that, in the circumstances represented in the figure, the line FC is compressed, and the axis is pushed by it against its supports in the direction C λ; and the body must, on this account, resist in the opposite direction F f. The particle A is dragged out of its position, and made to begin its motion in the direction AL perpendicular to AC. This cannot be, unless by the connexion of the two lines AC, AF. A resists by its inertia, and therefore both AC and AF are stretched by dragging it into motion. By this resistance the line AC tends to contract itself again, and it pulls C in the direction C c, and A in the direction A a; and if we take C c to represent the action on C, A a must be taken equal to it. In like manner AF is stretched and tends to contract, pulling F in the direction F ρ and A in the direction A α with equal forces. Thus the particle A is pulled in the directions A a and A α; the particle F is pulled in the direction F ρ, and pushed in the direction F f; and C is pulled in the direction C c, and pushed in the direction C $\varkappa$. A a and A α have produced their equivalent AL, by which A is dragged into motion; F f and F ρ produce their equivalent F g, by which the external force is resisted, and F g is equal and opposite to m.G i; the forces C c and C $\varkappa$ produce their equivalent C d by which the axis is pressed on its supports, and this is resisted by an equal and opposite reaction of the supports in the direction d C. The forces therefore which excite in the body the motion A.AL are both external, viz. the impelling force g F, and the supporting force d C. AL therefore is not only the immediate equivalent of A a and A α, but also the remote equivalent of g F and d C. We may therefore ascertain the proportion of g F (that is, of m.G i) to AL (that is, of A.AC), independent of the property of the lever. g F is to AL in the ratio compounded of the ratios of g F to F ρ or A α, and of α to AL. But we shall obtain it more easily by considering g F as the equivalent of AL and d C. By what has been demonstrated above the dire[illegible]ons

acting on each particle separately. It is this point only when all the particles gravitate alike, and in parallel directions If the body were near the centre of the earth, for instance, the gravitations of the different particles would neither be nearly equal nor in parallel lines; and the place of its real centre of gravity, on which the equivalent of its whole gravitation may be supposed to act, would be very different from G. Were we to denominate the point G, as usually determined, by its mathematical properties, we would call it the CENTRE OF POSITION; because its distance from any plane, or its position with respect to any plane, is the average distance and position of all the particles. The true designation of G is "the point through which if *any plane whatever* be made to pass, and if perpendiculars to this plane be drawn from every particle, the sum of all the perpendiculars on one side of this plane is equal to the sum of all the perpendiculars on the other side."

If we were to denominate G by its mechanical properties, we would call it the CENTRE OF INERTIA; for this is equal in every particle, and in the same direction: and it is not in consequence of gravity, but of inertia, that the body describes with the point G a line parallel to FP. We wish this remark to be kept in mind.

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directions of the three forces g F, AL, and d C must meet in one point E, and g F must be equal to the diagonal t E of the parallelogram E e t ε, of which the sides E e, E ε are respectively equal to AL and d C. Now t E is to E e as the sine of the angle t e E to the sine of the angle E t e, that is, as the sine of CEA to the sine of CEP, that is, as CA to CP, as we have already demonstrated by the property of the lever. We preferred that demonstration as the shortest, and as abundantly familiar, and as congenial with the general mechanism of rotatory motions. And the intelligent reader will observe, that this other demonstration is nothing but the demonstration by the lever expanded into its own elements. Having once made our readers sensible of this internal process of the excitement and operation of the forces which connect the particles, we shall not again have recourse to it.

17 It is evident that the sum of all the forces g F, or m.G i, must be equal to the whole moving force m.GI. that m.P p may be$=m$.GI. That is, we must have $m.\mathrm{GI}=\int\frac{\mathrm{A.CA}^2}{\mathrm{CP}}$; or, because CP is given when the position of the line FP is given, we must have $m.\mathrm{GI}=\int\frac{\mathrm{A.CA}^2}{\mathrm{CP}}$, where both A and CA are variable quantities.

18 This equation gives us $m.\mathrm{GI.CP}=\int\mathrm{A.CA}^2$. Now we learn in mechanics that the energy of any force applied to a lever, or its power of producing a motion round the fulcrum, in opposition to any resistance whatever, is expressed by the product of the force by the perpendicular drawn from the fulcrum on the line of its direction. Therefore we may call m.GI.CP the momentum (B), energy, or rotatory effort, of the force m.GI. And in like manner $\int\mathrm{A.CA}^2$ is the sum of the momenta of all the particles of the body in actual rotation; and as this rotation required the momentum m.GI.CP to produce it, this momentum balances, and therefore may express the energy of all the resistances made by the inertia of the particles to this motion of rotation. Or $\int\mathrm{A.CA}^2$ may express it. Or, take p to represent the quantity of matter in any particle, and r to represent its radius vector, or distance from the axis of rotation, $\int p.r^2$ will express the momentum of inertia, and the equilibrium between the momentum of the external force m.GI, acting in the direction FP, and the combined momenta of the inertia of all the particles of the whirling body, is expressed by the equation $m.\mathrm{GI.CP}=\int\mathrm{A.CA}^2,=\int p\,r^2$. The usual way of studying elementary mechanics gives us the habit of associating the word equilibrium with a state of rest; and this has made our knowledge so imperfect. But there is the same equilibrium of the actual immediate pressures when motion ensues from the action. When a weight A descending raises a smaller weight B by means of a thread passing over a pulley, the thread is equally stretched between the acting and resisting weights. The strain on this thread is undoubtedly the immediate moving force acting on B, and the immediate resisting force acting on A.

The same equation gives us $\mathrm{GI}=\frac{\int p.r^2}{m.\mathrm{CP}}$.

Now $\mathrm{GI}:\mathrm{CG}=\frac{\int p.r^2}{m.\mathrm{CP}}:\mathrm{CG},=\int p.r^2:m.\mathrm{CP.CG}$; 19

but CG represents the velocity of the centre. Hence we derive this fundamental proposition $\int p.r^2 : m.\mathrm{CP.CG} = \mathrm{GI} : \mathrm{CG}$; or, that $\int p.r^2$ is to m.CP.CG as the velocity of the body moving freely to the velocity of the centre of gravity round the axis of rotation.

Therefore the velocity of the centre is$=\frac{m.\mathrm{GI.CP.CG}}{\int p.r^2}$ 20

The velocity of any point B is $=\frac{m.\mathrm{GI.CP.CB}}{\int p.r^2}$. 21

This fraction represents the length of the arch described by the point B in the same time that the body unconnected with any fixed points would have described GI.

Therefore the angular velocity (the arch divided by the radius) common to the whole body is $=\frac{m.\mathrm{GI.CP}}{\int p.r^2}$. 22

It may be here asked, how this fraction can express an angle? It evidently expresses a number; for both the numerator and denominator are of the same dimensions, namely, surfaces. It therefore expresses the portion of the radius which is equal to the arch measuring the angle, such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{5}{2}$, &c. And to have this angle in degrees, we have only to recollect that the radius is 57,2958.

This angular velocity will be a maximum when the axis of rotation passes through the centre of gravity G. For draw from any particle A the line A a' perpendicular to CG, and join AG. Then $\mathrm{CA}^2=\mathrm{GA}^2+\mathrm{CG}^2\pm 2\,\mathrm{CG}\times\mathrm{G}\,a$. Therefore $\int\mathrm{CA}^2=\int\mathrm{GA}^2+\int\mathrm{CG}\pm\int 2\,\mathrm{CG}\times\mathrm{G}\,a,=\int\mathrm{GA}^2+m.\mathrm{CG}^2\pm\int 2\,\mathrm{CG}\times\mathrm{G}\,a$. But by the nature of the centre of gravity, the sum of all the $+\mathrm{G}\,a$ is equal to that of all the $-\mathrm{G}\,a$; and therefore $\pm\int 2\,\mathrm{GC}+\mathrm{G}\,a$ is nothing; and therefore $\int\mathrm{CA}^2=\int\mathrm{GA}^2+m.\mathrm{CG}^2$. 23

Therefore $\int\mathrm{CA}^2$ or $\int p\,r^2$ is smallest, and $\frac{m.\mathrm{GI.CP}}{\int p\,r^2}$ is greatest when $m.\mathrm{CG}^2$ is nothing, or when CG is nothing; that is, when C and G coincide.

The absolute quantity of motion in the whirling body, 24

(B) The word *momentum* is very carelessly used by our mechanical writers. It is frequently employed to express the product of the quantity of matter and velocity, that is, the quantity of motion; and it is also used (with strict propriety of language) to express the power, energy, or efficacy of a force to produce motion in the circumstances in which it acts. We wish to confine it to this use alone. Sir Isaac Newton adhered rigidly to this employment of the term (indeed no man exceeds him in precision of expression), even when he used it to express the quantity of motion: for in these instances the energy of this quantity of motion, as modified by the circumstances of its action, was always in the ratio of the quantity of motion.

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dy, or the sum of the motions of all its particles, is $\frac{m \,.\, \mathrm{GI} \,.\, \mathrm{CP} \,.\, \int p \,.\, r}{\int p r^2}$. For the motion of each particle is $\frac{m \,.\, \mathrm{GI} \,.\, \mathrm{CP} \,.\, p r}{\int p r^2}$.

25 Ratio of the resistance of a quantity of matter to a motion of rotation.

The resistance which a given quantity of matter makes to a motion of rotation is proportional to $\int p r^2$. For this must be measured by the forces which must be similarly applied in order to give it the same angular motion or angular velocity. Thus let one external force be $m \,.\, \mathrm{GI}$, and the other $m \,.\, \gamma\iota$.—Let both be applied at the distance CP. Let r be the radius vector in the one body, and ϱ in the other; now the angular velocities $\frac{m \,.\, \mathrm{GI} \,.\, \mathrm{CP}}{\int p r^2}$ and $\frac{m \,.\, \gamma\iota \,.\, \mathrm{CP}}{\int p \varrho^2}$ are equal by supposition. Therefore $m \,.\, \mathrm{GI} : m \,.\, \gamma\iota = \int p r^2 : \int p \varrho^2$.

As in the communication of motion to bodies in free space a given force always produces the same quantity of motion; so in the communication of motion to bodies obliged to turn round axes, a given force, applied at a given distance from the axes, always produces the same quantity of momentum. Whence it may easily be deduced (and we shall do it afterwards), that as in the communication of motion among free bodies the same quantity of motion is preserved, so in the communication of motion among whirling bodies the same quantity of whirling motion is preserved.

This is a proposition of the utmost importance in practical mechanics, and may indeed be considered as the fundamental proposition with respect to all machines of the rotatory kind when performing work; that is, of all machines which derive their efficacy from levers or wheels. There is a valuable set of experiments by Mr Smeaton in the Philosophical Transactions, Volume lxvi. which fully confirm it. We shall give an example by and bye of the utility of the proposition, showing how exceedingly imperfect the usual theories of mechanics are which do not proceed on this principle.

26 With respect to the general proposition from which all these deductions have been made, we must observe, that the demonstration is not restricted to the time necessary for causing each particle to describe an arch equal to the radius vector. We assumed the radius vector as the measure of the velocity merely to simplify the notation. Both the progressive motion of the free body and the rotation of the whirling body are uniformly accelerated, when we suppose the external force to act uniformly during any time whatever; and the spaces described by each motion in the same time are in a constant ratio. The formulæ may therefore with equal propriety represent the momentary accelerations in the different cases.

27 All the particles of a body not necessarily supposed in one plane.

It must also be observed, that it is not necessary to suppose that all the particles of the body are in one plane, and that the moving force acts in a line FP lying also in this plane. This was tacitly allowed, merely to make the present investigation (which is addressed chiefly to the practical mechanic) more familiar and easy. The equilibrium between the force $\mathrm{A} \times \mathrm{CA}$, which is immediately urging the particle A, and the force $m \,.\, \mathrm{G}\,i$ employed at P or F, in order to excite that force at A, would have been precisely the same although the lines AC and FP had been in different planes, provided only that these planes were parallel. This is known to every person in the least acquainted with the wheel and axle. But if the external moving force does not act in a plane parallel to the circles of rotation of the different particles, it must be resolved into two forces, one of which is perpendicular to these planes, or parallel to the axis of rotation, and the other lying in a plane of rotation. And it is this last only that we consider as the moving force; the other tends merely to push the body in the direction of its axis, but has no tendency to turn it round that axis. When we come to consider the rotation of a body perfectly free, it will be necessary to attend particularly to this circumstance. But there are several important mechanical propositions which do not require this.

28 The motion of a body estimated by that of its centre of gravity, &c.

The motion of any body is estimated by that of its centre of gravity, as is well known. The difference between the motion of the centre of a free body and the motion of the centre of a body turning round an axis, is evidently owing to the connexion which the parts of the body have with this axis, and to the action of the points of support on this axis. This action must be considered as another *external* force, combined with that which acts on the particle P, and therefore must be such as, if combined with it, would produce the very motion which we observe. That is, if we suppose the body unconnected with any fixed points, but as having its axis acted on by the same forces which these points exert, the body would turn as we observe it to do, the axis remaining at rest.

29 Therefore join I and H, and complete the parallelogram GIHK. It is plain that $m \,.\, \mathrm{GK}$ must represent the forces exerted by the axis on the fixed points.

30 If therefore GI should coincide with GH, and the point I with the point H, the force GK vanishes, and the body *begins* to turn round C, without exerting any pressure on the points of support; and the initial motion is the same as if the body were free. Or, the axis at C is then a *spontaneous* axis of conversion.

That this may be the case, it is necessary, in the first place, that the external force act in a direction perpendicular to CG; for GI is always parallel to FP: it being a leading proposition in dynamics, that when a moving force acts on any part whatever of a solid body, unconnected with fixed points, the centre of gravity will proceed in a straight line parallel to the direction of that force. In the next place GH must be equal to GI; that is, (N° 21) $\frac{m \,.\, \mathrm{GI} \,.\, \mathrm{CP} \,.\, \mathrm{CG}}{\int p r^2}$ is equal to GI, or $\frac{m \,.\, \mathrm{CP} \,.\, \mathrm{CG}}{\int p r^2} = 1$, and $\mathrm{CP} = \frac{\int p r^2}{m \,.\, \mathrm{CG}}$.

31 The equation $\mathrm{CP} = \frac{\int p r^2}{m \,.\, \mathrm{CG}}$ gives us $m \,.\, \mathrm{CG} \,.\, \mathrm{CP} = \int p r^2, = \int \mathrm{A} \,.\, \mathrm{CA}^2$. But it was shown (N° 23), that $\int \mathrm{A} \,.\, \mathrm{CA}^2 = \int \mathrm{A} \,.\, \mathrm{GA}^2 + m \,.\, \mathrm{CG}^2$. Therefore $\int \mathrm{A} \,.\, \mathrm{GA}^2 = m \,.\, \mathrm{CG} \,.\, \mathrm{CP} - m \,.\, \mathrm{CG} \,.\, \mathrm{CG}, = m \,.\, \mathrm{CG} (\mathrm{CP} - \mathrm{CG}), = m \,.\, \mathrm{CG} \,.\, \mathrm{CP}$. Therefore we have (for another determination of the point of impulse P so as to annihilate all pressure on the axis) $\mathrm{GP} = \frac{\int \mathrm{A} \,.\, \mathrm{GA}^2}{m \,.\, \mathrm{CG}}$. This is generally the most easily obtained, the mathematical situation of the centre of gravity being well known.

Rotation.

32 N.B. When $CP = \frac{\int p r^2}{m.CG}$, we shall always have the *velocity* of the centre the same as if the body were free, but there will always be a pressure on the points of support, unless FP be also perpendicular to CG. In other positions of FP the pressure on the axis, or on its points of support, will be m GI $\times 2$ sin. GCP.

33 Advantage of annihilating or diminishing the pressure on the supports of the axis of motion.

It would be a desirable thing in our machines which derive their efficacy from a rotatory motion, to apply the pressures arising from the power and from the resistance opposed by the work in such a manner as to annihilate or diminish this pressure on the supports of the axis of motion. Attention to this theorem will point out what may be done; and it is at all times proper, nay necessary, to know what are the pressures in the points of support. If we are ignorant of this, we shall run the risk of our machine failing in those parts; and our anxiety to prevent this will make us load it with needless and ill disposed strength. In the ordinary theories of machines, deduced entirely from the principles of equilibrium, the pressure on the points of support (exclusive of what proceeds from the weight of the machine itself) is stated as the same as if the moving and resisting forces were applied immediately to these points in their own directions. But this is in all cases erroneous; and, in cases of swift motions, it is greatly so. We may be convinced of this by a very simple instance. Suppose a line laid over a pulley, and a pound weight at one end of it, and ten pounds at the other; the pressure of the axis on its support is eleven pounds, according to the usual rule; whereas we shall find it only $3\frac{7}{11}$. For, if we call the radius of the pulley 1, the momentum of the moving force is $10 \times 1 - 1 \times 1, = 9$; and the momentum of inertia is $10 \times 1^2 + 1 \times 1^2$. (N⁰ 18.) $= 11$. Therefore the angular velocity is $\frac{9}{11}$. But the distance CG of the centre of gravity from the axis of motion is also $\frac{9}{11}$, because we may suppose the two weights in contact with the circumference of the pulley. Therefore the velocity of the centre of gravity is $\frac{9}{11} \times \frac{9}{11}, = \frac{81}{121}$ of its natural velocity. It is therefore diminished $\frac{40}{121}$ by the figure of the axis of the pulley, and the 11 pounds press it with $\frac{40}{121}$ of their weight, that is, with $3\frac{7}{11}$ pounds.

34 Of knowing the momentum of inertia:

Since all our machines consist of inert matter, which requires force to put it in motion, or to stop it, or to change its motion, it is plain that some of our natural power is expended in producing this effect; and since the principles of equilibrium only state the proportion between the power and resistance which will preserve the machine at rest, our knowledge of the actual performance of a machine is imperfect, unless we know how much of our power is thus employed. It is only the remainder which can be stated in opposition to the resistance opposed by the work. This renders it proper to give some general propositions, which enable us to compute this with ease.

35 and consequently the force necessary to overcome it.

It would be very convenient, for instance, to know some point in which we might suppose the whole rotatory part of the machine concentrated; because then we could at once tell what the momentum of its inertia is, and what force we must apply to the impelled point of the machine, in order to move it with the desired velocity.

Fig. 3. Let S, fig. 3. be this point of a body turning round the supported axis passing through C; that is, let S be such a point, that if all the matter of the body were collected there, a force applied at P will produce the same angular velocity as it would if applied at the same point of the body having its natural form.

The whole matter being collected at S, the expression $\frac{m.GI.CP}{\int p.r^2}$ of the angular velocity becomes $\frac{m.GI.CP}{m.CS^2}$ (N⁰ 22.); and these are equal by supposition. Therefore $\int p r^2 = m.CS^2$, and $CS = \sqrt{\frac{\int p r^2}{m}}$.

This point S has been called the Centre of Gyration.

In a line or slender rod, such as a working beam, or the spoke of a wheel in a machine, CS is $\sqrt{\frac{1}{3}}$ of its length.

In a circle or cylinder, such as the solid drum of a capstane, $CS = \sqrt{\frac{1}{2}}$ its radius, or nearly $\frac{7}{10}$. But if it turns round one of its diameters, $CS = \frac{1}{2}$ radius.

In the periphery of a circle, or rim of a wheel, CS = radius nearly.

If it turn round a diameter, $CS = \sqrt{\frac{1}{2}}$ radius. The surface of a sphere, or a thin spherical shell, turning round a diameter, has $CS = \sqrt{\frac{2}{3}}$ radius, or nearly $\frac{4}{5}$ or $\frac{5}{6}$.

A solid sphere turning round a diameter has $CS = \sqrt{\frac{2}{5}}$ radius, or nearly $\frac{7}{11}$. This is useful in the problem of the precession of the equinoxes. We may observe by the way, that if we consider the whirling body as a system of several bodies with rigid or inflexible connections, we may consider all the matter of each of these bodies as united in its centre of gyration, and the rotation of the whole will be the same; for this does not change the value of $\frac{\int p r^2}{m}$.

36 A simpler mode of allowing for the inertia of machines.

There is another way of making this correction of the motion of a machine, or allowing for the inertia of the machine itself, which is rather simpler than the one now given. We can suppose a quantity of matter collected at the point to which the moving force is applied, such that its inertia will oppose the same resistance to rotation that the machine does in its natural form. Suppose the moving force applied at P, as before, and that instead of the natural form of the body a quantity of matter $= \frac{\int p r^2}{CP}$, collected at P; the moving force will produce the same angular velocity as on the body, in its natural form. For the angular velocity in this case must be $\frac{m\ GI.CP}{\frac{\int p r^2}{CP^2}.CP^2}$ (N⁰ 22.) which is $= \frac{m.GI.CP}{\int p r^2}$, the same as before.

37 Centre of oscillation.

A point O may be found, at such a distance from the axis, that if all the matter of the body were collected there, and an external force $m.GI$ applied to it in a direction perpendicular or any how inclined to CO, it will produce the same angular velocity as when applied to the centre of gravity G, with the same inclination to the line CG.

In this case, the angular velocity must be $\frac{m.GI.CO}{m\ CO^2}$, (N⁰ 22.).

(N° 22.), which is $=\frac{GI}{CO}$. This must be equal (by supposition) to the angular velocity where the same force $m.GI$ is applied in the same inclination to G.—The angular velocity in this case must be $\frac{m.GI.CG}{\int p\, r^2}$.

38 Therefore we have $\frac{GI}{CO}=\frac{m.\,GI.\,CG}{\int p\, r^2}$, and $\frac{CO}{GI}=\frac{\int p\, r^2}{m.\,GI.\,CG}$, and $CO=\frac{\int p\, r^2}{m.\,CG}$. Also, as in N° 31, $GO=\frac{\int A.\,GA^2}{m.CG}$.

39 This point O has several remarkable properties.

Remarkable properties of it.

In the first place, it is the point of a common heavy body swinging round C by its gravity, where, if all its weight be supposed to be concentrated, it will perform its oscillations in the same time. For while the body has its natural form, the whole force of gravity may be supposed to be exerted on its centre of gravity. When the matter of the body is collected at O, the force of gravity is concentrated there also; and if CG have the same inclination to the horizon in the first case that CO has in the second, the action of gravity will be applied in the same angle of inclination, and the two bodies will acquire the same angular velocity; that is, they will descend from this situation to the vertical situation (that is, through an equal angle) in the same time. These two bodies will therefore oscillate in equal times. For this reason, the point O so taken in the line CG, which is the radius vector of the centre of inertia, that CO is equal to $\frac{\int A.\,CA^2}{m.\,CC}$, or $GO=\frac{\int A.\,GA^2}{m.\,CG}$, is called the Centre of Oscillation of the body; and a heavy point suspended by a thread of the length CO is called its *equivalent* or *synchronous pendulum*, or the *simple pendulum*, corresponding to the body itself, which is considered as a *compound pendulum*, or as consisting of a number of simple pendulums, which, by their rigid connection disturb each other's motions.

That CO may be the equivalent pendulum, and O the centre of oscillation, O must be in the line CG, otherwise it would not rest in the same position with the body, when no force was keeping it out of its vertical position. The equation $CO=\frac{\int A.\,CA^2}{m.\,CG}$ only determines the distance of the centre of oscillation from the centre of suspension, or the length of the equivalent simple pendulum, but does not determine the precise point of the body occupied by the centre of oscillation; a circumstance also necessary in some cases.

40 Mathematicians have determined the situation of this point in many cases of frequent occurrence. Huyghens, in his *Horologium Oscillatorium*, and all the best writers of treatises of mechanics, have given the method of investigation at length. The general process is, to multiply every particle by the square of its distance from the axis of suspension, and to divide the sum of all these products by the product of the whole quantity of matter multiplied by the distance of its centre of gravity from the same axis. The quotient is the distance of the centre of oscillation, or the length of the equivalent simple pendulum: for $CO=\frac{\int p.\,r^2}{m.\,CG}$.

Mode of determining its situation.

a. If the body is a heavy straight line, suspended by one extremity, CO is $\frac{2}{3}$ of its length.

b. This is nearly the case of a slender rod of a cylindrical or prismatic shape. It would be exactly so if all the points of a transverse section were equally distant from the axis of suspension.

c. If the pendulum is an isosceles triangle suspended by its apex, and vibrating perpendicularly to its own plane, CO is $\frac{3}{4}$ of its height.

d. This is nearly true of a very slender triangle (that is, whose height many times exceeds its base) swinging round its vertex in any direction.

e In a very slender cone or pyramid swinging from its vertex, CO is $\frac{4}{5}$ of its height nearly.

f. If a sphere, of which r is the radius, be suspended by a thread whose weight may be neglected and whose length is l, the distance between its centre of suspension and centres of oscillation is $a+r+\frac{2}{5}\frac{r^2}{a+r}$; and the distance between its centres of bulk and oscillation is $\frac{2}{5}\frac{r}{a+r}$. Thus, in a common second's pendulum, whose length at London is about $39\frac{1}{8}$ inches, the centre of oscillation will be found about $\frac{1}{100}$ of an inch below the centre of the ball, if it be two inches in diameter.

g. If the weight of the thread is to be taken into the account, we have the following distance between the centre of the ball and that of oscillation, where B is the weight of the ball, a the distance of the point of suspension and its centre, d the diameter of the ball, and w the weight of the thread or rod, $GO=\frac{(\frac{1}{3}w+\frac{2}{5}B)\,d^2-\frac{1}{6}w\,(a\,d+a^2)}{(\frac{1}{2}w+B)\,a-\frac{1}{2}d\,w}$: or, if we consider the weight of the thread as an unit, and the weight of the ball as its multiple (or as expressed by the number of times it contains the weight of the thread) $GO=\frac{\frac{1}{6}a}{B+\frac{1}{2}}$.

41 As the point O, determined as above, by making $CO=\frac{\int p\, r^2}{m.\,CG}$, is the centre of oscillation of the body turning round C, so C is the centre of oscillation of the same body turning round O: for resuming $A.CA^2$ in place of $p\, r$, we have $\int A.CA^2=m.\,CO.CG$. Now $\int A.CA^2=\int A.OA^2+\int A.OC^2-\int A.OC.\,2\,O\,\acute{a}$, (Euclid, II 12. 13.) or $m.CO.CG=\int A.OA^2+\int A.OC^2-\int A.OC.\,2\,O\,\acute{a}$. But $\int A.OC^2=m.OC^2$, $=m.OC.OC$; and (by the nature of the centre of gravity) $\int A.OC.\,2\,O\,\acute{a}=m.\,O\,.\,2\,OG$. Therefore we have $m.\,CO.CG=\int A.OA^2+m.OC\,OC-m.OC.\,2\,OG$; and $\int A.OA^2=m.OC.CG+m.CO.\,2\,OG-m.CO.OC$ $=m.CO\,(CG+2\,OG-CO)$. But $CG+2\,OG$ is equal to $CO+OG$, and $CG+2\,OG-CO$ is equal to OG. Therefore $\int A.OA^2=m.CO.OG$, and $CO=\frac{\int A.OA^2}{m.OG}$, which is all that is wanted (according to N° 39) to make C the centre of oscillation when O is the centre of suspension.

42 If the point of suspension, or axis of rotation, be anywhere in the circumference of a circle of which G is the centre the point O will be in the circumference of another circle of which G is the centre: for, by N° 38.

GO

Rotation.

$GO = \frac{SA.GA^2}{m.CG}$. Now $\int A.GA^2$ is a fixed quantity; and therefore while CG is constant, OG will also be constant.

43 We may also observe, that the distance of the axis from the centre S of gyration is a mean proportional between its distance from the centre G of gravity and the centre O of oscillation: for we had (N° .) $CS^2 = \frac{\int p\, r^2}{m}$, and $CO = \frac{\int p - r^2}{m.CG}$, and therefore $CO.CG = \frac{\int p\, r^2}{m}, = CS^2$ and $CO : CS = CS : CG$.

44 We see also that the distance CO is that at which an external force must be applied; so that there may not be any pressure excited in the axis upon its points of support, and the axis may be a spontaneous axis of conversion. This we learn, by comparing the value of CO with that of CP in art. 30. This being the case, it follows, that if an external force is applied in a direction passing through O, perpendicularly to CO, it will produce the same initial velocity of the centre as if the body were free: for as it exerts no pressure on the points of support, the initial motion must be the same at if they were not there.

45 If the external force be applied at a greater distance in the line CG, the velocity of the centre will be greater than if the body were free. In this case the pressure excited in the axis will be backward, and consequently the points of support will re-act forward, and this re-action will be equivalent to another external force conspiring with the one applied at O. Some curious consequences may be deduced from this.

46 Why this point is sometimes called the centre of percussion.

If the external force be applied to a point, in the line CG lying beyond C, the motion of the centre will be in the opposite direction to what it would have taken had the body been free, and so will be the pressures exerted by the points of support on the axis.

47 A force m.GI applied at P produces the initial progressive motion m.GH; and *any* force applied at O, perpendicularly to CG, produces the same motion of the centre as if the body were free. Therefore a force m.GH applied thus at O will produce a motion m.GH in the centre, and therefore the same motion which m.GI applied at P would produce; and it will produce the momentum m.GI at P. Therefore if a force equal to the progressive motion of the body be applied at O, perpendicularly to CO, in the opposite direction, it will stop all this motion without exciting any strain on the axis or points of support. Therefore the equivalent of all the motions of each particle round C is conceived as passing through O in a direction perpendicular to CO; and the blow given by that point to any body opposed to its motion is considered as equal to the compounded effect of the rotatory motion, or to the progressive motion of the body combined with its rotation.

48 Impropriety of the term.

For such reasons O has been called the Centre of Percussion of the body turning round C. But the name of *centre of momentum*, or *rotatory effort*, would have been more proper.

We can feel this property of the point O when we give a smart blow with a stick. If we give it a motion round the joint of the wrist only, and strike smartly with a point considerably nearer or more remote than two-thirds of its length, we feel a painful shock or wrench in the hand: but if we strike with that point which is precisely at two-thirds of its length, we feel no such disagreeable strain.

Rotation

49 Mechanical writers frequently say, that O considered as the centre of percussion, is that with which the most violent blow is struck. But this is by no means true; O is that point of a body turning round C which gives a blow precisely equal to the progressive motion of the body, and in the same direction. As we have already said, it is the point where we may suppose the whole rotatory momentum of the body accumulated. Every particle of the body is moving in a particular direction, with a velocity proportional to its distance from the axis of rotation; and if the body were stopped in any point, each particle tending to continue its motion endeavours to drag the rest along with it. Whatever point we call the centre of percussion should have this property, that when it is stopped by a sufficient force, the whole motion and tendency to motion of every kind should be stopped; so that if at that instant the supports of the axis were annihilated, the body would remain in absolute rest.

50 Centre of percussion how defined. Fig 4.

The consideration of a very simple case will show that this point of stoppage cannot be taken indifferently. Suppose a square or rectangular board CDD′C′, fig. 4. advancing in the direction GH, perpendicular to its plane, without any rotation. Let G be the centre of gravity, and the middle of the board. It is evident, that if a force be applied at G, in the direction HG, and equal to the quantity of motion of the board, all motion will be stopped: for when the point G is stopped, no reason can be assigned why one part of the board shall advance more than another. The same thing must happen if the board be stopped by a straight edge put in its way, and passing through G: for example, in the line LGM, or g G h. But if this edge be so placed that the board shall meet it with the line IPK, then, because this line does not divide it equally, and because there is a greater quantity of motion in the part CIKC′ than in the part IDD′K, though the progressive motion may be stopped, the upper part will advance, and a motion of rotation will commence, of which IK will be the axis. Now suppose that the board, instead of having been moving along in the direction GH, every part with the same velocity had been swinging round the axis CC′ like a pendulum, from the position C d d' C′, and that it is stopped by a straight edge meeting it in the line LGM parallel to CO′, in the moment that it has attained the vertical position CDD′C′; all its motion will not be stopped: for although LGM divides the board equally, there is more motion in the lower part LDD′M than in the upper part CLMC′, because every particle of the lower part is describing larger circles and moving swifter. Therefore when the line LGM is stopped, there will be a *tendency* of the lower part to advance, and the pivots C′ and C of the axis will be pressed backwards on their holes; and if the holes were at that instant removed, a rotation would commence, of which LM is the axis. The board must therefore be stopped in some line IPK below LGM, and so situated, that the sum of all the momenta on each side of it shall be equal. This alone

can

Rotation.

can hinder a rotation round the axis IPK. From what has been already demonstrated, it appears, that this will be prevented if the edge meets the board in a line IPK passing through O the centre of oscillation, which is situated in the line g G h passing through the centre of gravity perpendicular to the axis CC′. This line IOK may therefore be called the *line* or *axis* of percussion.

51 But any point of this line will not do. It is evident that if the board should meet the fixed edge in the line g GO h, all motion will be stopped, for the motions on each side are equal, and neither can prevail. But if it be stopped in the line p P q, there is more motion in the part p q D′C′ than in the part p q DC; and if the supports at C and C′ were that instant taken away, there would commence a rotation round the axis p q. Consequently, if the body were not stopped by an edge, but by a simple point at P, this rotation would take place. The motions above and below P would indeed balance each other, but the motions on the right and left sides of it would not. Therefore it is not enough for determining the centre of percussion that we have ascertained its distance g O from the axis of rotation by the equation $g\,O = \frac{\int p\,r^2}{m.gG}$. This equation only gives us the line IOK parallel to CC′, but not the point of percussion. This point (suppose it P) must be such that if any line p P q be drawn through it, and considered as an axis round which a rotation *may* commence, it *shall not* commence, because the sum of all the momenta round this axis on the right side is equal to the sum of the momenta on the left. Let us investigate in what manner this condition may be secured.

52 Let there be a body in a state of rotation round the
Fig. 5. axis D d (fig. 5.), and let G be its centre of gravity; and CGO a line through the centre of gravity perpendicular to the axis DC d. At the moment under consideration, the centre of gravity is moving in the direction GH, perpendicular to the radius vector GC, as also perpendicular to a plane passing through the lines D d and CG. Let O be the centre of oscillation. Draw the line n O parallel to D d. The centre of percussion must be somewhere in this line. For the point of percussion, wherever it is, must be moving in the same direction with the progressive motion of the body, that is, in a direction parallel to GH, that is, perpendicular to the plane DCG. And its distance from the axis D d must be the same with that of the centre of oscillation. These conditions require it therefore to be in some point of n O. Suppose it at P. Draw P p perpendicular to D d. P must be so situated, that all the momenta tending to produce a rotation round the line p P may balance each other, or their sum total be nothing.

Now let A be any particle of the body which is out of the plane DCG, in which lie all the lines CGO, p P, n OP, &c. Draw its radius vector A a perpendicular to D a and draw a n parallel to CG, and therefore perpendicular to D a. The plane A a n is perpendicular to the plane D a n (Euclid, XI. 4.). Draw AL perpendicular to A a, and A l perpendicular to a n. Then, while the body is beginning to turn round D d, the incipient motion of the particle A is in the direction AL, perpendicular to its radius vector A a This motion A L may be considered as compounded of the motion A l, perpendicular to the plane DCG, and the motion l L in this plane. It is evident that it is A l only which is opposed by the external force stopping the body at P, because A l alone makes any part of the progressive motion of the centre of gravity in the direction GH.

We have hitherto taken the *radii vectores* for the measures of the velocities or motions of the particles. Therefore the quantity of motion or the moving force of A is A.Aa, and this is exerted in the direction AL, and may be conceived as exerted on any point in this line, and therefore on the point L. That is, the point L might be considered as urged in this direction with the force A.A a, or with the two forces of which the force A.A a is compounded. The force in the direction AL is to the force in the direction A l as AL to A l, or as a A to a l, because the triangles A l L and a l A are similar. Therfore, instead of supposing the point L urged by the force A.A a, acting in the direction AL, we may suppose it impelled by the force A.a l, acting perpendicularly to the line A l, or to the plane DCG, and by the force A.A l acting in this plane, viz. in the direction L n. This last force has nothing to do with the percussion at P. Therefore we need consider the point L as only impelled by the force A.A l. The momentum of this force, or its power to urge the plane DCG forward in the direction GH, by turning it round D d, must be A.a l. a L. (*N. B.* This is equal to A.A a^2, because $a\,l : a\,A = a\,A : a\,L$, and A.A a^2, has been shown long ago to be the general expression of the rotatory momentum of a particle).

Draw L m perpendicular to P p. If we consider P p as an axis about which a motion of rotation may be produced, it is plain that the momentum of the point L to produce such a rotation will be A.a l . L m. In like manner, its momentum for producing a rotation round n P would be A.a l . L n. In general, its momentum for producing rotation round any axis is equal to the product of the perpendicular force at L (that is, A.a l) and the distance of L from this axis.

In order therefore that P may be the centre of percussion, the sum of all the forces A.a l.L m must be equal to nothing; that is, the sum of the forces A.a l.L m on one side of this axis P p must be balanced by the sum of forces A′. a l′.L′m′ on the other side. To express this in the usual manner, we must have $\int$ A.a l.n P$=0$. But n P$=n$ O$-$OP. Therefore $\int$ A.a l. n O$-\int$ A.a l.OP$=0$, and $\int$ A.a l.n O$=\int$ A.a l.OP. But OP is the same wherever the particle A is situated; and because G is the centre of gravity, the sum of all the quantities is A.a l is m.GC, m being the quantity of matter of the body; that is, $\int$ A . a $l$$=m$.GC, and $\int$ A . a l.OP$=m$. GC . O P, $=\int$ A. a l . n O. Hence we derive the final equation

$$OP = \frac{\int A\,.\,a\,l\,.\,n\,O}{m\,GC}.$$

Therefore the centre of percussion P of a body turning round the axis D d is determined by these conditions: 1st, It is in the plane DCG passing through the axis and the centre of gravity; 2d, It is in a line n O passing through the centre of oscillation, and parallel to the axis, and therefore its distance P p from the axis of 53

rotation

Rotation.

rotation is $\frac{\int A.A\,a^2}{m\,CG}$; and, 3d, Its distance OP from the centre of oscillation is $\frac{\int A.al.n\,O}{m.CG}$.

54 How both centres coincide.

In order therefore that the centres of oscillation and percussion may coincide, or be one and the same, OP must vanish, or SA.*al.n* O must be equal to nothing, that is, the sum of all the quantities A.*a l.n* O on one side of the line CO must be equal to the sum of all the quantities A'.*a' l'. n'* O on the other side.

55 Let D *d* δ Δ be a plane passing through the axis D *d* perpendicular to that other plane DCG through it, in which the centre of gravity is situated, and let C *g* γ ϰ be a third plane passing through the centre of gravity perpendicular to both the planes D *d* δ Δ and DCG. Draw *l r* and *a* α perpendicular to *a* L, and *r* ά perpendicular to *c r*, and then draw A α, A ά perpendicular to *a* α and *r* ά. It is evident that A α and A ά are respectively equal to *a l* and *l r*, or to *a l* and *n o*; so that the two factors or constituents of the momentum of a particle A round the centre of percussion are the distances of the particles from the planes D *d* δ Δ and ϰ *c g* γ, both of which are perpendicular to that plane through the axis in which the centre of gravity is placed.

We may see, from these observations, that the centres of oscillation and percussion do not necessarily coincide, and the circumstance which is necessary for their coincidence, viz. that $\int$ A.Aα A ά is equal to O. It is of importance to keep this in mind.

56 Further considerations of importance.

There occurs here another observation of great importance. Since every force is balanced by an equal force acting in the opposite direction, and since all motion progressive and rotatory is stopped by an external force applied at P in the direction *q* P, it follows that, if the body were at rest, and the same force be applied there, it will set the body in rotation round the axis D *d*, in the opposite direction, with the same angular velocity, and without any pressure on the pivots D and *d*. For whatever motion of the particle A, in the direction AL, was stopped by a part of the external force applied at P, the same motion will be produced by it in the quiescent particle A in the opposite direction LA. And as the pivots D and *d* had no motion in the case of the body turning round them, they will acquire no motion, or will have no tendency to motion, or no pressure will be exerted on them, in the last case. Therefore when an external force is applied at P in a direction perpendicular to the line P *p*, the line D *d* will become a momentary spontaneous axis of conversion, and the incipient motion of the body will perfectly resemble the rotation of the same body round a fixed axis D *d*.

57 There is another set of forces of which we have as yet taken no notice, viz. that part of each force AL which is directed along the plane DCG, and is represented by *l* L when the whole force is represented by AL, or by A *l* when the whole force is represented by A *a*. These forces being all in the plane DCG, and in the direction CG or GC, can have no effect on the rotation round any axis in that plane. But they tend, separately, to produce rotation round any axis passing through this plane perpendicularly. And the momentum of A to produce a rotation round an axis perpendicular to this plane, in O for instance, must evidently be A.A*l.n*O, and round P it must be A.A*l.n*P, &c. We shall have occasion to consider these afterwards.

58 Of balls and cylinders rolling down inclined planes.

It is usual in courses of experimental philosophy to illustrate the motions of bodies on inclined planes and curved surfaces by experiments with balls rolling down these surfaces. But the motions of such rolling balls are by no means just representations of the motions they represent. The ball not only goes down the inclined plane by the action of gravity, but it also turns round an axis. Force is necessary for producing this rotation; and as there is no other source but the weight of the ball, part of this weight is expended on the rotation, and the remainder only accelerates it down the plane. The point of the ball which rests on the plane is hindered from sliding down by friction; and therefore the ball tumbles, as it were, over this point of contact, and is instantly catched by another point of contact, over which it tumbles in the same manner. A cylinder rolls down in the very same way; and its motion is nearly the same as if a fine thread had been lapped round it, and one end of it made fast at the head of the inclined plane. The cylinder rolls down by unwinding this thread.

59 Mechanism of these motions.

The mechanism of all such motions (and some of them are important) may be understood by considering them as follows: Let a body of any shape be connected with a cylinder FCB (fig. 6.) whose axis passes through G the centre of gravity of the body. Suppose that body suspended from a fixed point A by a thread wound round the cylinder. This body will descend by the action of gravity, and it will also turn round, unwinding the thread. Draw the horizontal line OGC. It will pass through the point of contact C of the thread and cylinder, and C is the point round which it *begins* to turn in descending. Let O be its centre of oscillation corresponding to the momentary centre of rotation C. It will begin to descend in the same manner as if all its matter were collected in O: for it may be considered, in this instant, as a pendulum suspended at C. But in this case O will descend in the same manner as if the body were falling freely. Therefore the velocity of G (that is, the velocity of descent) will be to the velocity with which a heavy body would fall as CG to CO. Now since the points C, G, O, are always in a horizontal line, and the radius CG is given; as also CO (N° 48.) the velocity of a body falling freely, and of the body unwinding from this thread, will always be in the same proportion of CO to CG, and so will the spaces described in any given time. And thus we can compare their motions in every case when we know the place of the centre of oscillation.

Fig. 6.

Cor. 1. The weight of the descending body will be to the tension of the thread as CO to GO: for the tension of the thread is the difference between the momentum of the rolling body and that of the body falling freely.

60

Observe, that this proportion between the weight of the body and the tension of the thread will be always the same: for it has been demonstrated already, N° 42. that if C be in the circumference of a circle whose centre is G, O will be in the circumference of another circle

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circle round the same centre, and therefore the ratio of CG to CO is constant.

61 *Cor.* 2. If a circular body FCB roll down an inclined plane by unfolding a thread, or by friction which prevents all sliding, the space described will be to that which the body would describe freely as CG to CO: for the tendency down the inclined plane is a determined proportion of the weight of the body. The motion of rotation in these cases, both progressive and whirling, is uniformly accelerated.

62 Case of pendulous bodies.

Something of the same kind obtains in common pendulous bodies. A ball hung by a thread not only oscillates, but also makes part of a rotation; and for this reason its oscillations differ from those of a heavy point hanging by the same thread, and the centre of oscillation is a little below the centre of the ball. A ball hung by a thread, and oscillating between cycloidal cheeks, does not oscillate like a body in a cycloid, because its centre of oscillation is continually shifting its place. Huyghens avoided this by suspending his pendulous body from two points, so that it did not change its attitude during its oscillation. If our spring-carriages were hung in this manner, having the four lower staples to which the straps are fixed as far asunder as the four upper staples at the ends of the springs, the body of the carriage would perform its oscillations without kicking up and down in the disagreeable manner they now do, by which we are frequently in danger of striking the glasses with our heads. The swings would indeed be greater, but incomparably easier; and we could hold things almost as steadily in our hand as if the carriage were not swinging at all.

This will suffice for an account of the rotation round fixed axes, as the foundation for a theory of machines actually performing work. The limits of our undertaking will not allow us to do any more than just point out the method of applying it.

63 Method of applying this theory of rotation to practice.

Let there be any machine of the rotatory kind, i. e. composed of levers or wheels, and let its construction be such, that the velocity of the point to which the power is applied (which we shall call the *impelled point*) is to the velocity of the working point in the ratio of m to n. It is well known that the energy of this machine will be the same with that of an axis in peritrochio, of which the radii are m and n.

Let p express the actual pressure exerted on the impelled point by the moving power, and let r be the actual pressure or resistance exerted on the working point by the work to be performed. Let x be the inertia of the power, or the quantity of dead matter which must move with the velocity of the impelled point in order that the moving power may act. Thus the moving power may be *the weight* of a bucket of water in a water-wheel; then x is the quantity of matter in this bucket of water. Let y in like manner be the inertia of the work, or matter which must be moved with the velocity of the working point, in order that the work may be performed. Thus y may be a quantity of water which must be continually pushed along a pipe. This is quite different from the weight of the water, though it is proportional to it, and may be measured by it.

Let f be a pressure giving the same resistance when applied at the working-point with the friction of the machine, and let an^2 be the momentum of the machine's inertia, viz. the same as if a proper quantity of matter a were attached to the working point, or to any point at the same distance from the axis.

This state of things may be represented by the wheel and axle PQS (fig. 7.) where x and y and a are represented by weights acting by lines. P is the impelled point, and R the working-point; CP is m and CR is n. The moving force is represented by PA, the resistance by RB, and the friction by BF. Fig. 7.

It is evident that the momentum of the inertia of x, y, and a are the same as if they were for a moment attached to the points P and R.

64 Formulæ, and their use in practice.

Hence we derive the following expressions:

1. The angular velocity $= \dfrac{p\,m - \overline{r+f}\,n}{x\,m^2 + \overline{y+a}\,n^2}$

2. Velocity of the working-point $= \dfrac{p\,m\,n - \overline{r+f}\,n^2}{x\,m^2 + \overline{y+a}\,n^2}$ 65

3. Work performed $= \dfrac{p\,m\,n\,r - \overline{r+f}\,n^2\,r}{x\,m^2 + \overline{y+a}\,n^2}$. For the 66 work is proportional to the product of the resistance and the velocity with which it is overcome.

We shall give a very simple example of the utility of these formulæ. Let us suppose that water is to be raised in a bucket by the descent of a weight, and that the machine is a simple pulley. Such a machine is described by Desaguliers *, who says he found it preferable to all other machines. The bucket dipped itself in the cistern. A chain from it went over a pulley, and at its extremity was a stage on which a man could step from the head of a stair. His preponderance brought down the stage and raised the bucket, which discharged its water into another cistern. The man quitted the stage, and walked up stairs, and there he found it ready to receive him, because the empty bucket is made heavier than the empty stage.

* *Exper. Phil.* vol. ii. p. 503.

Now, if there be no water in the bucket, it is evident, that although the motion of the machine will be the quickest possible, there will be no work performed. On the other hand, if the loaded stage and the full bucket are of equal weight, which is the usual statement of such a machine in elementary treatises of mechanics, the machine will stand still, and no work will be performed. In every intermediate state of things the machine will move, and work will be performed. Therefore the different values of the work performed must be a series of quantities which increase from nothing to a certain magnitude, and then diminish to nothing again. The maxim which is usually received as a fundamental proposition in mechanics, viz. that what is gained in force by the intervention of a machine is lost in time, is therefore false. There must be a particular proportion of the velocities of the impelled and working-points, which will give the greatest performance when the power and resistance are given; and there is a certain proportion of the power and resistance which will have the same effect when the structure of the machine has previously fixed the velocities of the impelled and working-points.

This proportion will be found by treating the formula which expresses the work as a fluxionary quantity, and finding its maximum. Thus, when the ratio of the power and resistance is given, and we wish to know what must be the proportion of the velocities 67

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m and n, that we may construct the machine accordingly, we have only to consider n as the variable quantity in the third formula. This gives us

$$n = m \times \frac{\sqrt{x^2 \times \overline{r+f}^2 + p^2 x \overline{a+y}} - x\overline{r+f}}{\overline{pa+y}}.$$

68 This is a fundamental proposition in the theory of working machines: but the application requires much attention. Some natural powers are not accompanied by any inertia worth minding; in which case x may be omitted. Some works, in like manner, are not accompanied by any inertia; and this is a very general case. In many cases the work exerts no contrary strain on the machine at rest, and r is nothing. In most instances the intensity of the power varies with the velocity of the impelled point, and is diminished when this increases; the resistance or actual pressure at the working-point frequently increases with the velocity of the working-point. All these circumstances must be attended to; but still they only modify the general proposition. These are matters which do not come within the limits of the present article. We only took this opportunity of showing how imperfect is the theory of machines in equilibrio for giving us any knowledge of their performance or just principles of their construction.

69 Common mode of estimating external impulsions,

One thing, however, must be particularly attended to in this theory. The forces which are applied to the body moveable round an axis are considered in the theory as pressures actually exerted on the impelled points of the body or machine, as when a weight is appended to a lever or wheel and axle, and, by descending uniformly, acts with its whole weight. In this case the weight multiplied by its distance from the axis will always express its momentum, and the rotation will *(cæteris paribus)* be proportional to this product. But in many important cases our machines are actuated by external impulsions. A body in motion strikes on the impelled point of the machine, and causes it to turn round its axis. It is natural for us to consider the quantity of motion of this impelling body as the measure of our moving force. Supposing n to be its quantity of matter, and V its velocity, n V appears a very proper measure of its intensity. And if it be applied at the distance CP from the axis of rotation, n V.CP should express its energy, momentum, or power to turn the machine round C; and we should express the angular velocity by $\frac{n\,\mathrm{V}\,.\,\mathrm{CP}}{\int p r^2}$. Accordingly, this is the manner in which calculations are usually made for the construction and performance of the machine, as may be seen in almost every treatise of mechanics.

70 shown to be erroneous.

But nothing can be more erroneous, as we shall show by a very simple instance. It should result from these principles that the angular velocity will be proportional to CP. Let us suppose our moving power to be a stream of water moving at the rate of ten feet per second, and that every second there passes 100 pounds of water. We should then call our moving force 1000. It is evident, that if we suppose the arm of the floatboard on which it strikes to be infinitely long, the impelled point can never move faster than 10 feet in a second, and this will make the angular velocity infinitely small, instead of being the greatest of all. The rotation will therefore certainly be greater if CP be shorter. We need not examine the case more minutely.

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71 Distinction to be made between the quantity of motion and moving power of an impelling body

We must therefore carefully distinguish between the quantity of motion of the impelling body and its moving power, as it is modified by its manner of acting. The moving power is the *pressure actually exerted* on the impelled point of the machine. Now the universal fact of the equality of action and reaction in the collision of bodies assures us, that their mutual pressure in their collision is measured by the *change* of motion which each sustains: for this change of motion is the only indication and measure of the pressure which we suppose to be its cause. A way therefore of ascertaining what is the real moving force on a machine actuated by the impulsion of a moving body, is to discover what quantity of motion is lost by the body or gained by the machine; for these are equal. Having discovered this, we may proceed according to the propositions of rotatory motion.

72 Fig. 8.

Therefore let AEF (fig. 8.) represent a body moveable round an axis passing through C, perpendicular to the plane of the figure. Let this body be struck in the point A by a body moving in the direction FA, and let BAD be a tangent to the two bodies in the point of collision. It is well known that the mutual actions of two solid bodies are always exerted in a direction perpendicular to the touching surfaces. Therefore the mutual pressure of the two bodies is in the direction AP perpendicular to AD. Therefore let the motion of the impelling body be resolved into the directions AP and AD. The force AD has no share in the pressure. Therefore let V be the velocity of the impelling body estimated in the direction AP, and let n be its quantity of matter. Its quantity of motion in the direction AP will be n V.

Did AP pass through C, it is evident that the only effect would be to press the axis on its supports. But AP, the direction of the pressure, being inclined to AC, the point A is forced aside, and in some small moment of time describes the little arch A a round the centre C. The point P will therefore describe a small arch P p, subtending an angle PC p = AC a. Draw a o perpendicular to AP, and a d perpendicular to AD. The triangles d A o, ACP are similar, and A a : A o = AC : CP. But the angles AC a, PC p being equal, the arches are as their radii, and A a : P p = AC : CP, = A a : A o, therefore φp = A o.

Nowsince, in consequence of the impulse, A describes A a in the moment of time, it is plain that A o is the space through which the impelling body continues to advance in the direction of the pressure; and if V be taken equal to the space which it described in an equal moment before the stroke, v will express the remaining velocity, and V − v is the velocity lost, and n (V − v) is the quantity of motion lost by the impelling body, and is the true measure of the pressure exerted. This gives us the whole circumstances of the rotatory motion. The angular velocity will be $\frac{n(\mathrm{V}-v).\mathrm{CP}}{\int p r^2}$, and the velocity of the point A will be $\frac{n(\mathrm{V}-v).\mathrm{CP.CA}}{\int p r^2}$. Call this velocity u. The similarity of triangles gives us CA : CP = A a (or v) : A o (or v) and $u = \frac{v.\mathrm{CA}}{\mathrm{CP}}$. Therefore

fore $\frac{V.CA}{CP} = \frac{n(V-v)\,CP.CA}{\int p r^2}$. From this we deduce $v = \frac{n.V.CP^2}{\int p r^2 + n.CP^2}$, and thus we have obtained the value of v in known quantities; for n was given, or supposed known; so also was V: and since the direction FA was given, its distance CP from the axis is given; and the form of the body being known, we can find the value of $\int p r^2$. Now we have seen that v is also the velocity of the point P; therefore we know the absolute velocity of a given point of the body or machine, and consequently the whole rotatory motion.

73 We have the angular velocity $= \frac{n.V.CP}{\int p r^2 + n.CP^2}$: we shall find this a maximum when $\int p r^2 = n.CP^2$; and in this case $CP = \sqrt{\frac{\int p r^2}{n}}$, and $v = \frac{1}{2}V$. So that the greatest velocity of rotation will be produced when the striking body loses $\frac{1}{2}$ of its velocity.

74 Authors treating of the application of that theory recommended. What we have now delivered is sufficient for explaining all the motions of bodies turning round fixed axes; and we presume it to be agreeable to our readers, that we have given the investigation of the centres of gyration, oscillation, and percussion. The curious reader will find the application of these theorems to the theory of machines in two very valuable dissertations by Mr Euler in the Memoirs of the Academy of Berlin, vol. viii. and x. and occasionally by other authors who have treated mechanics in a scientific and useful manner, going beyond the school-boy elements of equilibrium.

75 Of the rotation of free bodies. There remains a very important case of the rotation of bodies, without which the knowledge of the motion of solid bodies is incomplete; namely, the rotation of free bodies, that is, of bodies unconnected with any fixed points. We hardly see an instance of motion of a free body without some rotation. A stone thrown from the hand, a ball from a cannon, the planets themselves, are observed not only to advance, but also to whirl round. The famous problem of the precession of the equinoxes depends for its solution on this doctrine; and the theory of the working of ships has the same foundation. We can only touch on the leading propositions.

76 We need not begin by demonstrating, that when the direction of the external force passes through the centre of the body, the body will advance without any rotation. This we consider is familiarly known to every person versant in mechanics; nor is it necessary to demonstrate, that when the direction of the moving force does not pass through the centre of gravity, this centre will still advance in a direction parallel to that of the moving force, and with the same velocity as if the direction of the moving force had passed through it. This is the immediate consequence of the equality of action and reaction observed in all the mechanical phenomena of the universe.

But it is incumbent on us to demonstrate, that when the direction of the moving force does not pass through the centre of gravity, the body will not only advance in the direction of the moving force, but will also turn round an axis, and we must determine the position of this axis, and the relation subsisting between the progressive and rotatory motions.

The celebrated John Bernoulli was the first who considered this subject; and in his *Disquisitiones Mechanico-dynamicæ*, he has demonstrated several propositions concerning the spontaneous axis of conversion, and the motions arising from eccentric external forces: and although he assumed for the leading principle a proposition, which is true only in a great number of cases, he has determined the rotation of spherical bodies with great accuracy.

77 This combination of bodies will be palpable in some simple cases, such as the following: Let two equal bodies A and B (fig. 9.) be connected by an inflexible rod (of which we may neglect the inertia for the present). Let G be the middle point, and therefore the centre of gravity. Let an external force act on the point P in the direction FP perpendicular to AB, and let AP be double of PB. Also let the force be such, that it would have caused the system to have moved from the situation AB to the situation $a\,b$, in an indefinitely small moment of time, had it acted immediately on the centre G. G would in this case have described G g, A would have described A a, and B would have described B b, and $a\,b$ would have been parallel to AB: for the force impressed on A would have been equal to the force impressed on B; but because the force acts on P, the force impressed on A is but one half of that impressed on B by the property of the lever: therefore the initial motion or acceleration of A will be only half of the initial motion of B; yet the centre G must still be at g. We shall therefore ascertain the initial motion of the system, by drawing through g a line $\alpha\,g\,\beta$, so that A α shall be $\frac{1}{2}$ of B β. This we shall do by making AC = AB, and drawing C $\alpha\,g\,\beta$. Then $\alpha\,\beta$ will be the position of the system at the end of the moment of time. Thus we see that the body must have a motion of rotation combined with its progressive motion. Fig. 9.

78 How motion is performed in these cases, And we deduce immediately from the premises that this rotation is performed round an axis passing through the centre of gravity G: for since the centre describes a straight line, it is never either above or below the axis of rotation, and is therefore always in it. This is a fundamental theorem, and our subsequent investigation is by this means greatly simplified, being thus reduced to two problems: 1. To determine in what direction the axis passes through the centre of gravity. 2. To determine the angular velocity of the rotation, or how far the centre must advance while the body makes one turn round the axis. This establishes the relation between the progressive and rotatory motions. It will contribute to our better conception of both these problems to see the result in the present simple case.

79 It is evident, in the first place, that the impressions made on A and B are in lines A a, B b parallel to FP and G g; and therefore the motions of the points A, G, and B, are made in one plane, viz. the plane FPG. The axis of rotation therefore must be a line drawn through G, perpendicular to this plane. If we give it any other position, one of the points A, B, or both of them, must quit this plane.

In the next place, in $b\,a$ produced take $b\,c$ = BC. Then supposing AC to be a rigid line connected with the system, it is evident that if there had been no rotation, the line BC would have kept parallel to its first position, and that at the end of the moment of time C would

Rotation. would have been at c. The point C therefore has had, by the rotation, a backward motion c C, relative to the centre G or g, and this motion is equal to the progressive motion G g of the centre; therefore if we make G γ equal to the circumference of a circle whose radius is CG, the body will make one rotation round the centre of gravity, while this centre moves along G γ; and thus the relation is established between the two motions.

80 But farther, the point C has, in fact, not moved out of its place. The incipient motion has therefore been such, that C has become a spontaneous centre of conversion. It is easy to see that this must always be the case, whatever may be the form of the rigid body or system of particles connected by inflexible and inextensible lines. Since the system both advances and turns round an axis passing through its centre of gravity, there must be some point in the system, or which may be conceived as connected with it by an inflexible line, which moves backward, by the rotation, as fast as the centre advances forward. A line drawn through this point parallel to the axis must in this instant be at rest, and therefore must be a spontaneous axis of conversion. And, in this instant, the combined motions of rotation round an axis passing through the centre of gravity and the motion of progression, are equivalent to, and actually constitute, an incipient simple motion of rotation round another axis parallel to the former, whose position may be ascertained. But it is necessary to establish this proposition and its converse on clearer evidence.

81 Fig. 10. Therefore let G (fig. 10.) be the centre of gravity of a rigid system of particles of matter, such as we suppose a solid body to be. Let this system be supposed to turn round the axis G g, while the axis itself is moving forward in the direction and with the velocity GI. Let the rotation be such, that a particle A has the direction and velocity A h. Let us first suppose the progressive motion GI to be perpendicular to the axis G g. It will therefore be parallel to the planes of the circles described round the axis by the different particles. Let CG g be a plane perpendicular to GI. It will cut the plane of the circle described by A in a straight line $c\,g$, and g will be the centre round which A is turning. Therefore A g will be the radius vector of A, and A h is perpendicular to A g. Let A d be perpendicular to $c\,g$, and in A d take A e equal to GI or $g\,i$. It is evident, that the absolute motion of A is compounded of the motions A e and A h, and is the diagonal A f of the parallelogram A $e\,f\,h$. In the line $g\,c$, which is perpendicular to G g, take $g\,c$ to g A, as A e to A h, and draw c C parallel to g G, and produce h A till it cut $c\,g$ in n. We say that C c is in this moment a spontaneous axis of conversion; for, because A n is perpendicular to A g and A d to C g, the angle $c\,g$ A is equal to d A n, or $f\,h$ A. Therefore, since $c\,g : g\,A = f\,h : h\,A$, the triangles $c\,g$ A and $f\,h$ A are similar, and the angle g A c is equal to h A f. Take away the common angle g A f, and the remaining angle c A f is equal to the remaining angle h A g, and A f is perpendicular to A c, and the incipient motion of A is the same in respect of direction as if it were turning round the axis c C. Moreover, A f is to $f\,h$ or $g\,i$ as A c to $c\,g$. Therefore, both the direction and velocity of the absolute motion of A is the same as if the body were turning round the fixed axis c C; and the combined motion A e of progression, and the motion A h of rotation round G g, are equivalent to, and really constitute, a momentary simple motion of rotation round the axis C c given in position, that is, determinable by the ratio of A e to A h. Rotation

On the other hand, the converse proposition is, that 82
a simple motion of rotation round a fixed axis C c, such that the centre G has the velocity and direction GI perpendicular to CG, is equivalent to, and produces a motion of rotation round an axis G g, along with the progressive motion GI of this axis. This proposition is demonstrated in the very same way, from the consideration that, by the rotation round C c, we have c A : $c\,g = A\,f : g\,i$. From this we deduce, that A h is perpendicular to A g, and that $f\,h$: A $h = c\,g : g$ A; and thus we resolve the motion A f into a motion A h of rotation round G g, and a motion A e of progression common to the whole body.

But let us not confine the progressive motion to the 83
direction perpendicular to the axis G g. Let us suppose that the whole body, while turning round G g, is carried forward in the direction and with the velocity GK. We can always conceive a plane LGC, which is perpendicular to the plane in which the axis G g and the direction GK of the progressive motion are situated.—And the motion GK may be conceived as compounded of a motion GI perpendicular to this plane and to the axis; and a motion of translation GL, by which the axis slides along in its own direction. It is evident, that in consequence of the first motion GI, there arises a motion of rotation round C c. It is also evident, that if, while the body is turning for a moment round C c, this line be slid along itself in the direction c C, a motion equal to GL will be induced on every particle A, and compounded with its motion of rotation AF, and that if $f\varphi$ be drawn equal and parallel to GL, φ will be the situation of the particle A when G is in K.

And thus it appears, that when the progressive mo- 84
tion is perpendicular to the axis of rotation passing through the centre of gravity, the two motions progressive and rotatory are equivalent to a momentary simple motion of rotation round a spontaneous axis of conversion, which is at rest: but when the progressive motion is inclined to the axis passing through the centre, the spontaneous axis of conversion is sliding in its own direction.

85 exemplified. We may conceive the whole of this very distinctly and accurately by attending to the motion of a garden roller. We may suppose it six feet in circumference, and that it is dragged along at the rate of three feet in a second from east to west, the axis of the roller lying north and south. Suppose a chalk line drawn on the surface of the roller parallel to its axis. The roller will turn once round in two seconds, and this line will be in contact with the ground at the intervals of every six feet. In that instant the line on the roller now spoken of is at rest, and the motion is the same as if it were fixed, and the roller really turning round it. In short, it is then a spontaneous axis of conversion.

Now, suppose the roller dragged in the same manner and in the same direction along a sheet of ice, while the ice is floating to the south at the rate of four feet in a second. It is now plain that the roller is turning round an axis through its centre of gravity, while the centre is carried in the direction f 36° 52′ W. at the rate of five

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five feet per second. It is also plain, that when the line drawn on the surface of the stone is applied to the ice, its only motion is that which the ice itself has to the southward. The motion is now a motion of rotation round this spontaneous axis of conversion, compounded with the motion of four feet per second in the direction of this axis. And thus we see that any complication of motion of rotation round an axis passing through the centre of gravity, and a motion of progression of that centre, may always be reduced to a momentary or incipient motion of rotation round another axis parallel to the former, compounded with a motion of that axis in its own direction.

The demonstration which we have given of these two propositions points out the method of finding the axis C *c*, the incipient rotation round which is equivalent to the combined progressive motion of the body, and the rotation round the axis G *g*. We have only to note the rotatory velocity A *h* of some particle A, and its distance A *g* from the axis, and the progressive velocity GI of the whole body, and then to make GC a fourth proportional to A *h*, GI, and *g* A, and to place GC in a plane perpendicular to GI, which is perpendicular to G *g*, and to place C on that side of G *g* which is moving in the opposite direction to the axis.

86 In the simple case of this problem, which we exhibited in order to give us easy and familiar notions of the subject, it appeared that the retrograde velocity of rotation of the point C was equal to the progressive velocity of the centre. This must be the case in every point of the circumference of the circle of which CG, fig. 9. is the radius. Therefore, as the body advances, and turns round G, this circle will apply itself in succession to the line CK parallel to G γ; and any individual point of it, such as C, will describe a cycloid of which this circle is the generating circle, CK the base, and CG half the altitude. The other points of the body will describe trochoids, elongated or contracted according as the describing points are nearer to or more remote from G than the point C is.

87 The application made to more complex cases. It is now evident that all this must obtain in every case, as well as in this simple one. And when we have ascertained the distance GC between the axis of rotation passing through the centre, and the momentary spontaneous axis of conversion passing through C, we can then ascertain the relation between the motions of rotation and progression. We then know that the body will make one rotation round its central axis, while its centre moves over a space equal to the circumference of a circle of a known diameter.

We must therefore proceed to the methods for determining the position of the point C. This must depend on the proportion between the velocity of the general progressive motion, that is, the velocity of the centre, and the velocity of some point of the body.—This must be ascertained by observation. In most cases which are interesting, we learn the position of the axis, the place of its poles, the comparative progressive velocity of the centre, and the velocity of rotation of the different points, in a variety of ways; and it would not much increase our knowledge to detail the rules which may be followed for this purpose. The circumstance which chiefly interests us at present is to know how these motions may be produced; what force is necessary, and how it must be applied, in order to produce a given motion or rotation and progression; or what will be the motion which a given force, applied in a given manner, will produce.

88 We have already given the principles on which we may proceed in this investigation. We have shown the circumstances which determine the place of the centre of percussion of a body turning round a given fixed axis. This centre of percussion is the point of the body where all the inherent forces of the whirling body precisely balance each other, or rather where they unite and compose one accumulated progressive force, which may then be opposed by an equal and opposite external force. If, therefore, the body is not whirling, but at rest on this fixed axis, and if this external force be applied at the centre of percussion, now become a *point of impulsion*, a rotation will commence round the fixed axis precisely equal to what had been stopped by this external force, but in the opposite direction; or, if the external force be applied in the direction in which the centre of percussion of the whirling body was moving at the instant of stoppage, the rotation produced by this impulse will be the same in every respect. And we found that in the instant of application of this external force, either to stop or to begin the motion, no pressure whatever was excited on the supports of the axis, and that the axis was, in this instant, a spontaneous axis of conversion.

Moreover, we have shown, art. 84, that a rotation round any axis, whether fixed or spontaneous, is equivalent to, or compounded of, a rotation round another axis *parallel to it*, and passing through the centre of gravity, and a progressive motion in the direction of the centre's motion at the instant of impulse.

Now, as the position of the fixed axis, and the known disposition of all the particles of the body with respect to this axis, determines the place of the centre of percussion, and furnishes all the mathematical conditions which must be implemented in its determination, and the direction and magnitude of the force which is produced and exerted at the centre of percussion; so, on the other hand, the knowledge of the magnitude and direction of an external force which is exerted on the point of impulsion of a body not connected with any fixed axis, and of the disposition of all the parts of this body with respect to this point of impulsion, will, furnish us with the mathematical circumstances which determine the position of the spontaneous axis of conversion, and therefore determine the position of the axis through the centre (parallel to the spontaneous axis of conversion), round which the body will whirl, while its centre proceeds in the direction of the external force.

89 Mode of determining the axis of progressive rotation the converse of that for determining the centre of percussion. The process, therefore, for determining the axis of progressive rotation is just the converse of the process for determining the centre of percussion.

John Bernoulli was the first who considered the motion of free bodies impelled by forces whose line of direction did not pass through their centre of gravity; and he takes it for granted, that since the body both advances and turns round an axis passing through the centre of gravity, this axis is perpendicular to the plane passing through the direction of the force, and through the point of impulsion and the centre of gravity. Other authors of the first name, such as Huyghens, Leibnitz, Roberval, &c. have thought themselves obliged to demonstrate this. Their demonstration is as follows:

Let

Rotation.

Fig. 11.

Let a body whose centre of gravity is G (fig. 11.) be impelled at the point P by a force acting in the direction PQ not passing through the centre. The inertia of the whole body will resist in the same manner as if the whole matter were collected in G, and therefore the resistance will be propagated to the point P in the direction GP. The particle P, therefore, is impelled in the direction PQ, and resisted in the direction PA, and must therefore begin to move in some direction PB, which makes the diagonal of a parallelogram of which the sides have the directions PQ and PA. The diagonal and sides of a parallelogram are in one plane. P is therefore moving in the plane APQB or GPQ, and it is turning round an axis which passes through G.—Therefore this axis *must* be perpendicular to the plane GPQ.

90 It would require a series of difficult propositions to show the fallacy of this reasoning in general terms, and to determine the position of the axis through G. We shall content ourselves with a very simple case, where there can be no hesitation. Let A and A (fig. 12.) be two equal balls connected with the axis $a\,b$ by inflexible lines A a, B b, perpendicular to $a\,b$. Let A a be 1, and B b 2. The centre of gravity G will evidently be in the line c G parallel to A a and B b, and in the middle of $a\,b$, and c G is $1\frac{1}{2}$. Let O be the centre of oscillation. c O is $= \frac{A\,.\,A\,a^2 + B\,.\,B\,b^2}{A + B\,.\,c\,G}, = \frac{5}{3}$ —.

Fig. 21.

Draw A m, B n perpendicular to c G, and suppose the balls transferred to m and n. The centre of oscillation will be still at O: and we see that if the system in this form were stopped at O, all would be in equilibrio. For the force with which the ball A arrives (by swinging round the axis) at m, is as its quantity of matter and velocity jointly, that is A . A a, or 1. That of B arriving at n is B . B b, or 2. The arm m O of the lever turning round O is $\frac{2}{3}$, and the arm n O is $\frac{1}{3}$. The forces, therefore, are reciprocally as the arms of the lever on which they act, and their momenta, or powers to turn the line $m\,n$ round O, are equal and opposite, and therefore balance each other; and therefore, at the instant of stopping no pressure is exerted at c. Therefore, if any impulse is made at O, the balls at m and n will be put in motion with velocities 1 and 2, and c will be a spontaneous centre of conversion. Let us see whether this will be the case when the balls are in their natural places A and B, or whether there will be any tendency to a rotation round the axis c O. The momentum of A, by which it tends to produce a rotation round c O is A . A a . A m, $= 1 \times$ A m. That of B is B.B b . B n, $= 2 \times$ B n. A m and B n are equal, and therefore the momentum of B is double that of A, and there is a tendency of the system to turn round c C; and if, at the instant of stoppage, the supports of the axis $a\,b$ were removed, this rotation round c O would take place, and the point b would advance, and a would recede, c only remaining at rest. Therefore, if an impulse were made at O, $a\,b$ would not become a spontaneous momentary axis of conversion, and O is not the centre of percussion. This centre must be somewhere in the line OP parallel to $a\,b$, as at P, and so situated that the momenta A . A a . A α and B . B β . B β may be equal, or that A α may be double of B β, or $a\,p$ double of $b\,p$. If an impulse be now made at P, the balls A B will be urged by forces as 1 and 2, and therefore will move as if round the axis $a\,b$, and there will be no pressures produced at a and b, and $a\,b$ will really become a momentary spontaneous axis of conversion.

Now join G and P. Here then it is evident that a body or system A, B, receiving an impulse at P perpendicular to the plane $a\,c$ G, acquires to itself a spontaneous axis of conversion which is not perpendicular to the line joining the point of impulsion and the centre of gravity. And we have shown, in art. 84. that this motion round $a\,b$ is compounded of a progressive motion of the whole body in the direction of the centre, and a rotation round an axis passing through the centre *parallel to* $a\,b$. Therefore, in this system of free bodies, the axis of rotation is not perpendicular to the plane passing through the centre of gravity in the direction of the impelling force.

91 Difficulty of ascertaining its position in general terms.

As we have already observed, it would be a laborious task to ascertain in general terms the position of the progressive axis of rotation. Although the process is the inverse of that for determining the centre of percussion when the axis of rotation is given, it is a most intricate business to convert the steps of this process. The general method is this: The momentum of a particle A (fig. 5.) by which it tends to change the position of the axis D d, has for its factors A α A l, and A α, which are its distances from three planes D $d\,\delta\,\Delta$, DCO n, and C $g\,\gamma\,z$, given in position. The sum of all these must be equal to nothing by the compensation of positive and negative quantities. We must find three other planes (of which only one is in some measure determined in position, being perpendicular to DCO n), so situated that the sums of similar products of the distances of the particles from them may in like manner be equal to nothing. This is a very intricate problem; so intricate, that mathematicians have long doubted and disputed about the certainty of the solutions. Euler, d'Alembert, Frisi, Landen, and others, have at last proved, that every body, however irregular its shape, has at least three axes passing through its centre of gravity, round which it will continue to revolve while proceeding forward, and that these are at right angles to each other; and they have given the conditions which must be implemented in the determination of these axes. But they still leave us exceedingly at a loss for means to discover the positions of the axes of a given body which have these conditions.

To solve this problem therefore in general terms, would lead to a disquisition altogether disproportioned to our work. We must restrict ourselves to those forms of body and situations of the point of impulsion which admit of the coincidence of the centres of oscillation and percussion; and we must leave out the cases where the axis has a motion in the direction of its length; that is, we shall always suppose the spontaneous axis of conversion to have no motion. Thus we shall comprehend the phenomena of the planetary motions, similar to the precession of our equinoctial points, and all the interesting cases of practical mechanics. The speculative mathematical reader will fill up the blanks of this investigation by consulting the writings of Euler and D'Alembert in the Berlin Memoirs, Frisi's Cosmographia, and the papers of Mr Landen, Mr Milner, and Mr Vince, in the Philosophical Transactions. But we hope, by means of a beautiful proposition on the composition

position of rotatory motions, to enable every reader to discover the position of the axis of progressive rotation in every case which may interest him, without the previous solution of the intricate problem mentioned above.

92 Mode of ascertaining it in most interesting cases. Fig. 13.

Let ABPC$p\,b$ A (fig. 13.) be a section of a body through its centre of gravity G, so formed, that the part ABPC is similar, and similarly placed with the part A $b\,p$ C, so that the plane AC would divide it equally. Let this body be impelled at P in the direction HP, perpendicular to the plane AC. The axis round which it will turn will be perpendicular to G π. Suppose it at A. Then drawing AB and A b to similar points, it is plain that B β, $b\,\beta$ are equal and opposite; these represent the forces which would raise or lower one end of the axis, as has been already observed. The axis therefore will remain perpendicular to G π.

93 Let the body be so shaped, that if the parts to the right and left of the point of impulse π (the impulse is here supposed not *perpendicular* to the plane AC, but *in* this plane) are equal and similarly placed; then the momenta round AC must balance each other, and the axis EF will have no tendency to go out of the plane ABC b A perpendicular to the impulse.

Any body whose shape has these two properties will turn round an axis perpendicular to the plane which passes through the centre of gravity in the direction of the impelling force. This condition is always found in the planets when disturbed by the gravitation to a distant planet: for they are all figures of revolution. The direction of the disturbing or impelling force is always in a plane passing through the axis and the disturbing body.

With such limitations therefore we propose the following problem:

94 Fig. 14.

Let G (fig. 14.) be the centre of gravity of a body in free space, which is impelled by an external force f, acting in the line FP, which does not pass through the centre. Let m be the number of equal particles in the body, or its quantity of matter. Let the force f be such, that it would communicate to the body the velocity v; that is, would cause the centre to move with the velocity v. It may be expressed by the quantity of motion which it produces, that is, by $m\,v$, and it would produce the velocity $m\,v$ on one particle. It is required to determine the whole motion, progressive and rotatory, which it will produce, and the space which it will describe during one turn round its axis.

Draw GI parallel and PGC perpendicular to FP, and let GI be taken for the measure of the progressive velocity v.

It has been demonstrated that the centre G will proceed in the direction GI with the velocity v, and that the body will at the same time turn round an axis passing through G, perpendicular to the plane of the figure, every particle describing circles in parallel planes round this axis, and with velocities of rotation proportional to their distances from it. There is therefore a certain distance GB, such that the velocity with which a particle describes its circumference is equal to the progressive velocity v. Let BCD be this circumference. When the particle describing this circumference is in the line CGP, and in that part of it which lies beyond P from G, its absolute velocity must be double that of the centre G, but when it is in the opposite point C its retrograde velocity being equal to the progressive velocity of the centre, it must be at rest. In every position of the body, therefore, that point of the accompanying circumference which is at this extremity of the perpendicular drawn through the centre on the line of direction of the impelling force is at rest. It is at that instant a spontaneous centre of conversion, and the straight line drawn through it perpendicular to the plane of the figure is then a spontaneous axis of conversion, and every particle is in a momentary state of rotation round this axis, in directions perpendicular to the lines drawn to the axis at right angles, and with velocities proportional to these distances; and lastly, the body advances in the direction GI through a space equal to the circumference BCD, while it makes one turn round G.

95 Let A be one of the particles in the plane of the figure. Join AC, AG, AP. Draw A b, A c, A d perpendicular to CP, CA, GA. The absolute motion A c of A is compounded of the progressive motion A b common to the whole body and equal to GI, and the motion A d of rotation round the centre of gravity G. Therefore since A b is equal to v, and A c is the diagonal of a parallelogram given both in species and magnitude, it is also given, and (as appears also from the reasoning in art. 85.) it is to GI as CA to CG.

96 By the application of the force $m\,v$ in the direction FP, every particle of the body is dragged out of its place, and exerts a resistance equal to the motion which it acquires. A part of this force, which we may call $m\,\dot{v}$, is employed in communicating the motion A c to A. And, from what has been lately shown, CG : CA $=$ GI : A c, $= v$: A c, and therefore A $c = \frac{v.\mathrm{CA}}{\mathrm{CG}}$. But farther (agreeably to what was demonstrated in art. 16.) we have CP : CA $=$ A $c : m\,\dot{v}, = \frac{v.\mathrm{CA}}{\mathrm{CG}} : mv$, and therefore $m\dot{v} = \frac{v.\mathrm{CA}^2}{\mathrm{CG.CP}}$. Therefore the whole force employed in communicating to each particle the motion it really acquires, or mv, is equal to the fluent of the quantity $\frac{v.\mathrm{CA}^2}{\mathrm{CP.CG}}$. or $mv = \frac{v.\int \mathrm{CA}^2}{\mathrm{CP.CG}}$ and m . CP . CG $= \int \mathrm{CA}^2$, which by art. 23. is equal to $\int \mathrm{GA}^2 + m.\mathrm{CG}$. Therefore we have $m.\mathrm{CP.CG} - m\,\mathrm{CG} = \mathrm{CG} = \int \mathrm{GA}^2$, or $m.\mathrm{GP.CG} = \int \mathrm{GA}^2$, and finally, $\mathrm{CG} = \frac{\int \mathrm{GA}^2}{m.\mathrm{GP}}$.

Now the form of the body gives us $\int \mathrm{GA}^2$, and the position of the impelling force gives us m.GP. Therefore we can compute the value of CG; and if π be the periphery of a circle whose radius is unity, we have π.CG equal to the space which the body must describe in the direction GI, while it makes one rotation round its axis.

97 *Cor.* 1. The angular velocity, that is, the number of turns or the number of degrees which one of the radii will make in a given time, is proportional to the impelling force: for the length of CG depends only on the form of the body and the situation of the point of impulsion; while the time of describing π times this length is inversely as the force.

98 2. The angular velocity with any given force is as GP :

Rotation. GP: for CG, and consequently the circumference π.CG, described during one turn, is inversely as GP.

99 3. PC is equal to $\frac{\int PA^2}{m.GP}$: for we have $\int PA^2 = \int GA^2 + m.GP^2$. Therefore $\frac{\int PA^2}{m.GP} = \frac{\int GA^2}{m.GP} + \frac{m.GP^2}{m.GP}, = CG + GP, = CP$.

100 4. If the point C is the centre of impulsion of the same body, P will be a spontaneous centre of conversion (see art. 41.).

101 5. A force equal and opposite to mv, or to f, applied at G, will stop the progressive motion, but will make no change in the rotation; but if it be applied at P, it will stop all motion both progressive and rotatory. If applied between P and G, it will stop the progressive motion, but will leave some motion of rotation. If applied beyond P it will leave a rotation in the opposite direction. If applied beyond G, or between G and C, it will increase the rotation. All this will be easily conceived by reflecting on its effect on the body at rest.

102 6. A whirling body which has no progressive motion cannot have been brought into this state by the action of a single force. It may have been put into this condition by the simultaneous operation of two equal and opposite forces. The equality and opposition of the forces is necessary for stopping all progressive motion. If one of them has acted at the centre, the rotatory motion has been the effect of the other only. If they have acted on opposite sides, they conspired with each other in producing the rotation; but have opposed each other if they acted on opposite sides.

In like manner, it is plain that a motion of rotation, together with a progressive motion of the centre in the direction of the axis, could not have been produced by the action of a single force.

103 7. When the space S which a body describes during one rotation has been observed, we can discover the point of impulse by which a single force may have acted in producing both the motions of progression and rotation: for $CG = \frac{S}{\pi}$, and $GP = \frac{\int GA^2}{m.CG}, = \frac{\pi \int GA^2}{m.S}$.

104 Application of this doctrine to the heavenly motions. In this manner we can tell the distances from the centre at which the sun and planets may have received the single impulses which gave them both their motions of revolution in their orbits and rotation round their axes.

It was found (art. 40. f) that the distance OG of the centre of oscillation or percussion of a sphere swinging round the fixed point C from its centre G, is $\frac{2}{3}$ of the third proportional to CG, and the radius of the sphere, or that $OG = \frac{2}{3}\frac{RG^2}{CG}$. Supposing the planets to be homogeneous and spherical, and calling the radius of the planet r, and the radius of its orbit R, the time of a rotation round its axis, t and the time of a revolution in its orbit T, and making $1 : \pi$ the ratio of radius to the periphery of a circle, we shall have π R for the circumference of the orbit, and $\pi R \frac{t}{T}$ for the arch of this circumference described during one rotation round the axis. This is S in the above-mentioned formula. Then, diminishing this in the ratio of the circumference to radius, we obtain $CG = R\frac{t}{T}$, and $OG = \frac{2}{3}\frac{r^2}{CG}, = \frac{2}{3}\frac{T r^2}{t R}$. This is equivalent to $\frac{\pi \int GA^2}{m.S}$, and easier obtained.

This gives us G v

105

For the Earth =	$\frac{r}{157}$	nearly.
Moon	$\frac{r}{555}$	
Mars	$\frac{r}{195}$	
Jupiter	$\frac{r}{2.8125}$	
Saturn	$\frac{r}{2.588}$	

We have not data for determining this for the sun. But the very circumstance of his having a rotation in 27 d. 7 h. 47 m. makes it very probable that he, with all his attending planets, is also moved forward in the celestial spaces, perhaps round some centre of still more general and extensive gravitation: for the perfect opposition and equality of two forces, necessary for giving a rotation without a progressive motion, has the odds against it of infinity to unity. This corroborates the conjectures of philosophers, and the observations of Herschel and other astronomers, who think that the solar system is approaching to that quarter of the heavens in which the constellation Aquila is situated.

8 As in the communication of progressive motion among bodies, the same quantity of motion is preserved before and after collision, so in the communication of rotation among whirling bodies the quantity of rotatory momentum is preserved. This appears from the general tenor of our formulæ: for if we suppose a body turning round an axis passing through its centre, without any progressive motion, we must suppose that the force $m\,v$, which put it in motion, has been opposed by an equal and opposite force. Let this be supposed to have acted on the centre. Then the whole rotation has been the effect of the other acting at some distance GP from the centre. Its momentum is $m\,v$.GP. Had it acted alone, it would have produced a rotation compounded with a progressive motion of the centre with the velocity v; and the body acquires a momentary spontaneous axis of conversion at the distance GC from the centre of gravity. The absolute velocity AC of any particle is $\frac{v.AC}{CG}$; its momentum is $\frac{v.AC^2}{GC}$, and the sum of all the momenta is $\frac{\int v.AC^2}{CG}$, or $\frac{v \int AC^2}{CG}$, and this is equal to $m\,v$.GP. But when the progressive motion is stopped, A b, which was a constituent of the absolute motion of A, is annihilated, and nothing remains but the motion A d of rotation round G. But the triangles d A c and GAC were demonstrated

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strated (N° 81.) to be similar; and therefore AC : Ad = CA : GA. Therefore the absolute velocity of the particle, while turning round the quiescent centre of gravity G, is $\frac{v.GA}{GC}$; its momentum is $v\frac{.GA^2}{GC}$; the sum of all the momenta is $\frac{v\int GA}{GC}$; and this is still equal to $m\,v$. Observe, that now GC is not the distance of the centre of conversion from the centre of gravity, because there is now no such thing as the spontaneous axis of conversion, or rather it coincides with the axis of rotation. GC is the distance from the centre of a particle whose velocity of rotation is equal to v.

Now let the body be changed, either by a new distribution of its parts, or by an addition or abstraction of matter, or by both; and let the same force $m\,v$ act at the same distance GP from the centre. We shall still have $m\,v\,.\,GP = \frac{v\int GA^2}{GC}$; and therefore the sum of the momenta of the particles of the whirling body is still the same, viz. equal to the momentum of the force $m\,v$ acting by the lever GP. If therefore a free body has been turning round its centre of gravity, and has the distribution of its parts suddenly changed (the centre however remaining in the same place), or has a quantity of matter suddenly added or taken away, it will turn with such an angular velocity that the sum of the momenta is the same as before.

107 Application to the problem of the precession of the equinoxes.

We have been so particular on this subject, because it affects the celebrated problem of the precession of the equinoxes; and Sir Isaac Newton's solution of it is erroneous on account of his mistake in this particular. He computes the velocity with which a quantity of matter equal to the excess of the terrestrial spheroid over the inscribed sphere would perform its librations if detached from the spherical nucleus. He then supposes it suddenly to adhere to the sphere, and to drag it into the same libratory motion; and he computes the libration of the whole mass, upon the supposition that the quantity of motion in the libratory spheroid is the same with the previous quantity of motion of the librating redundant ring or shell; whereas he should have computed it on the supposition that it was the quantity of momenta that remained unchanged.

The same thing obtains in rotations round fixed axes, as appears by the perfect sameness of the formulæ for both classes of motions.

This law, which, in imitation of the Leibnitzians, we might call the *conservatio momentorum*, makes it of importance to have expressions of the value of the accumulated momenta in such cases as most frequently occur. The most frequent is that of a sphere or spheroid in rotation round an axis or an equatorial diameter; and a knowledge of it is necessary for the solution of the problem of the precession of the equinoxes. See Precession, N° 33.

108 Fig. 15.

Let AP $a\,p$ (fig. 15.) be a sphere turning round the diameter P p, and let DD′, dd' be two circles parallel to the equator A a, very near each other, comprehending between them an elementary slice of the sphere. Let CA be $= a$, CB $= x$, and BD $= y$, and let π be the circumference of a circle whose radius is 1. Lastly, let the velocity of the point A be v. Then

$v\frac{y}{a}$ is the velocity at the distance y from the axis, $\pi\,y$ is the quantity of matter in the circumference whose radius is y; for it is the length of that circumference when expanded.

$\frac{v\,\pi\,y^2}{a}$, or $\frac{v\,y}{a} \times \pi\,y$, is the quantity of motion in this circumference turning round the axis P p.

$\frac{v\,\pi\,y^3}{a}$ is the momentum of the same circumference.

$\frac{v\,\pi\,\dot{y}^3 y}{a}$ is the fluxion of the momentm of the circle whose radius is y, turning in its own plane round the axis.

$\frac{v\,\pi\,y^4}{4.a}$ is the fluent, or the momentum of the whole circle; and therefore it is the momentum of the circle DD′.

$\frac{v\,\pi\,y^4\,\dot{x}}{4a}$ is the fluxion of the momentum of the hemisphere; for B$b = \dot{x}$, and this fraction is the momentum of the slice d D D′ d'.

$y^2 = a^2 - x^2$, and $y^4 = a^4 - 2\,a^2\,x^2 + x^4$. Therefore $\frac{v\,\pi}{2a} \times (a^4\,\dot{x} - 2\,a\,x^2\,\dot{x} + x^4\,\dot{x})$ is the fluxion of the momentum of the whole sphere. Of this the fluent for the segments whose heights are CB, or x, is $\frac{v\,\pi}{2\,a}$ $(a^4 x - \frac{2a^2\,x^3}{3} + \frac{x^5}{5})$

Let x become a, and we have for the momentum of the whole sphere $\frac{v\,\pi}{2a}\,(a^5 - \frac{2}{3}\,a^5 + \frac{1}{5}\,a^5), = v\pi\left(\frac{a^4}{2} - \frac{a^4}{3} + \frac{a^4}{10}\right) = v\pi\,\frac{4}{15}\,a^4$.

109

Let us suppose that this rotation has been produced by the action of a force $m\,u$; that is, a force which would communicate the velocity u to the whole matter of the sphere, had it acted in a direction passing through its centre; and let us suppose that this force acted on the equatorial point A at right angles to AC: its momentum is $m\,u\,a$, and this is equal to $v\,\pi\,\frac{4}{15}\,a^4$. Also, we know that $m = \frac{2}{3}\,\pi\,a^3$. Therefore we have $u\,.\,\frac{2}{3}\,\pi\,a^4 = v\,\frac{4}{15}\,\pi a^4$, $\frac{2}{3}\,u = \frac{4}{15}\,v$, and $v = \frac{5}{2}\,u$.

110

Let EPQ p be an oblate spheroid whose semi-axis PC is a, and equatorial radius EC is b, and let v be the velocity on the equator of the inscribed sphere. Then since the momentum of the whirling circle D D is $\frac{v\,\pi\,y^4}{4\,a}$, the momenta of the sphere and spheroid are in the quadruplicate ratio of their equatorial radii; and therefore that of the whole spheroid is $\frac{4}{15}\,\pi\,b^4\,v$. And if w be the velocity at E corresponding to the velocity v at A, so that $w = \frac{b}{a}\,v$, we have the momentum of the spheroid, expressed in terms of the equatorial velocity at the surface, $\frac{4}{15}\,b^3\,a\,w$.

111

If the same force $m\,u$ be made to act in the same manner

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manner at E, its momentum $m\,u\,b$ is $= \frac{4}{15}\,b^5\,a\,w$, and $w = \frac{15\,m\,u}{4\,\pi\,b^2\,a}$. Therefore the angular velocities $\frac{v}{a}$, $\frac{w}{b}$, which the same force $m\,u$ acting at A or E will produce in the sphere and the spheroid, are as $\frac{15\,mu}{4\,\pi a^4}$ and $\frac{15\,mu}{4\,b^5\,a}$ that is, in the triplicate ratio of the equatorial diameter b to the polar axis a.

112 Lastly, if the oblate spheroid is made to turn round an equatorial diameter passing through C perpendicular to the plane of the figure, it is plain that every section parallel to the meridian E P Q p is an ellipse similar to this meridian. If this ellipse differs very little from the inscribed circle, as is the case of the earth in the problem of the precession of the equinoxes, the momentum of each ellipse may be considered as equal to that of a circle of the same area, or whose diameter is a mean proportional between the equatorial and polar diameters of the spheroid. This radius is to the radius of the circumscribed circle as $\sqrt{b\,a}$ to b. Therefore the momenta of the section of the spheroid and of the circumscribed sphere are in the constant ratio of $b^2\,a^2$ to b^4; or of a^2 to b^2. And if the velocity in the equator of this circumscribed sphere be called w, the momentum of the sphere is $\frac{4}{15}\,\pi\,b^4\,w$; and therefore that of the spheroid is $\frac{4}{15}\,\pi\,b^4\,w$, agreeably to what was assumed in the article Precession, N° 33.

This value of the momentum of a spheroid round an equatorial diameter is only a very easy approximation; an exact value may be obtained by an infinite series. The whole matter of the spheroid may be considered as uniformly distributed on the surface of a similar spheroid whose diameter is $= \sqrt{\frac{1}{2}}$ of the diameter of the spheroid. It will have the same momentum, because a triangle in one of the ellipses, having an elementary arch of the circumference for its base, and the centre of the ellipse for its vertex, has its centre of gyration distant from the vertex $\sqrt{\frac{1}{2}}$ the length of the radius of the ellipse, and the problem is reduced to the finding the sum of all these lines. But even when the series for this sum involves the 3d power of the eccentricity, it is not more exact than the above approximation.

A similar proposition may be obtained for a prolate spheroid vibrating round an equatorial diameter, and applied to the conjectural shape of the moon, for explaining her oscillations.

113 All rotatory motions accompanied by centrifugal forces.

The reader must have observed that the preceding disquisitions refer to those motions only which result from the action of external forces and to the state of incipient motion. All circular motions, such as those of rotation, are accompanied by centrifugal forces. A central force is necessary for retaining every particle in its circular path; such forces must therefore be excited in the body, and can arise only from the forces of cohesion by which its particles are held together. These forces are mutual, equal, and opposite; and as much as a particle A (fig. 5.) is retained by a force in the direction A a of the line which connects it with the fixed axis D d, or in the direction AG (fig. 10.), which connects it with the progressive axis; so much must the point a of the axis D d be urged in the opposite direction a A, or so much must the whole body be urged in the direction GA. Every point therefore of the axis D d, or of the axis through G in fig. 10. is carried in a variety of directions perpendicular to itself. These forces may or may not balance each other. If this balance obtains with respect to the fixed axis, its supports will sustain no pressure but what arises from the external force: if not one support will be more pressed than the other; and if both were removed, the axis would change its position. The same must be affirmed of the axis through G in fig. 10. This, having no support, must change its position.

114 And thus it may happen, that the axis of rotation passing through G which has been determined by the preceding disquisitions, is not permanent either in respect of the body, or in respect of absolute space. These two rotations are essentially different. The way to conceive both is this. Suppose a spherical surface described round the body, having its centre in the centre of gravity; and suppose this surface to revolve and to proceed forward along with the body: in short, let it be conceived as an immaterial surface attached to the body. The axis of rotation will pass through this surface in two points which we shall call its poles. Now, we say that the axis is permanent with respect to the body when it has always the same poles in this spherical surface. Suppose another spherical surface described round the same centre, and that this surface also accompanies the body in all its progressive motion, but does not turn with it. The axis is permanent with respect to absolute space when it has always the same poles in this surface: it is evident that these two facts are not inseparable. A boy's top spins on the same point and the same corporeal axis, while, towards the end of its motion, we observe it directing this round and round to different quarters of the room. And when we make an egg or a lemon spin with great rapidity on its side on a level table, we see it gradually rise up, till it stand quite on end, spinning all the while round an axis pointing to the zenith.

115 This change in the position of the axis is produced by the unbalanced actions of the centrifugal forces exerted by the particles. Suppose two equal balls A and B (fig. 16) connected by an inflexible rod whose middle point is G, the centre of gravity of the balls. This system may be made to turn round the material axis D d, A describing the circle AEFA, and B describing the circle BHKB. The rod AB may also be conceived as moveable round the point G by means of a pin at right angles to the axis. Suppose the balls passing through the situations A and B; their centrifugal forces urge them at the same time in the directions CA and OB, which impulsions conspire to make the connecting rod recede from both ends of the axis D d. And thus the balls, instead of describing parallel circles round this axis, will describe parallel spirals, gradually opening the angles DGA, d GB more and more, till the balls acquire the position $\alpha\,\beta$ at right angles to the axis. They will not stop there, for each came into that position with an oblique motion. They will pass it; and were it not for the resistance of the air and the friction of the joint at G, they would go on till the ball A came to describe the circle BHK, and the ball B to describe the circle AEF. The centrifugal forces will now have exhausted by opposition all the motion which they had acquired during their passage from the position AB to the position $\alpha\,\beta$; and now they will again describe spirals

Fig. 16

Rotation.

rals gradually opening, and then contracting, till the balls arrive at their original position A B, when the process will begin again. Thus they will continue a kind of oscillating rotation.

116 Thus the axis is continually changing with respect to the system of balls; but it is fixed in respect to absolute space, because the axis D d is supported. It does not yet appear that it has any tendency to change its position, because the centrifugal tendency of the balls is completely yielded to by the joint at G. The material axis has indeed sustained no change; but the real axis, or mathematical line round which the rotation was going on every moment, has been continually shifting its place. This is not so obvious, and requires a more attentive consideration. To show accurately the gradual change of position of the real axis of rotation would require a long discussion. We shall content ourselves with exhibiting a case where the position of the momentary axis is unquestionably different from D d, which we may suppose horizontal.

Take the balls in the position $\alpha\,\beta$. They came into this position with a spiral motion, and therefore each of them was moving obliquely to the tangents $\alpha\,\varphi$, $\beta\,\gamma$ to the circle $\alpha\,\delta\,\beta\,\varepsilon$, suppose in the directions $\alpha\,\theta$, $\beta\,\lambda$. They are therefore moving round the centre G in a plane $\theta\,\alpha\,\beta\,\lambda$, inclined to the plane $\varphi\,\alpha\,\beta\,\gamma$ of the circle $\alpha\,\delta\,\beta\,\varepsilon$. The momentary axis of rotation is therefore perpendicular to this oblique plane, and therefore does not coincide with D d.

117 Of the evagation of the axis.

We cannot enter upon the investigation of this evagation of the axis, although the subject is both curious and important to the speculative mathematicians. A knowledge of it is absolutely necessary to a *complete* solution of the great problem of the precession. But when treating that article, we contented ourselves with showing that the evagation which obtains in this natural phenomenon is so exceedingly minute, that although multiplied many thousands of times, it would escape the nicest observation of modern astronomers; and that it is a thing which does not accumulate beyond a certain limit, much too small for observation, and then diminishes again, and is periodical. Euler, D'Alembert, Frisi, and De la Grange, have shown the momentary position of the real variable axis corresponding to any given time; and Landen has with great ingenuity and elegance connected these momentary positions, and given the whole paths of evagation. Mr Segnor was, we believe, the first who showed (in a Dissertation *De Motu Turbinum*, Halle, 1755), that in every body there were at least three lines passing through the centre of gravity at right angles to each other, forming the solid angle of a cube, round which the centrifugal forces were accurately balanced, and therefore a rotation begun round either of these three lines would be continued, and they are permanent axes of rotation. Albert Euler gave the first demonstration in 1760, and since that time the investigation of these axes has been extended and improved by the different authors already named. It is an exceedingly difficult subject; and we recommend the synthetical investigation by Frisi in his *Cosmographia* as the fittest for instructing a curious reader to whom the subject is new. We shall conclude this dissertation with a beautiful theorem, the enunciation of which we owe to P. Frisi, which has amazingly improved the whole theory, and gives easy and elegant solutions of the most difficult problems. It is analogous to the great theorem of the composition of motions and forces.

118 P. Frisi's theorem. Fig. 17.

If a body turn round an axis AG a (fig. 17.) passing through its centre of gravity G with the angular velocity a, while this axis is carried round another axis BG b with the angular velocity b, and if GD be taken to GK as a to b (the points B and E being taken on that side of the centre where they are moving towards the same side of the plane of the figure), and the line DE be drawn, then the whole and every particle of the body will be in a state of rotation round a third axis CG c, lying in the plane of the other two, and parallel to DE, and the angular velocity c round this axis will be to a and to b as DE is to GD and to GE.

For, let P be any particle of the body, and suppose a spherical surface to be described round G passing through P. Draw PR perpendicular to the plane of the figure. It is evident that PR is the common section of the circle of rotation IP i round the axis A a, and the circle KP k of rotation round the axis B b. Let I i, K k be the diameters of these circles of rotation, F and G their centres. Draw the radii PF and PO, and the tangents PM and PN. These tangents are in a plane MPN which touches the sphere in P, and cuts the plane of the axis in a line MN, to which a line drawn from the centre G of the sphere through the point R is perpendicular. Let PN represent the velocity of rotation of the point P round the axis B b, and P f its velocity of rotation round A a. Complete the parallelogram PN t f. Then P t is the direction and velocity of motion resulting from the composition of PN and P f. P t is in the plane MPN, because the diagonal of a parallelogram is in the plane of its sides PN and P f.

Let perpendiculars f F, t T, be drawn to the plane of the axes, and the parallelogram PN t f will be orthographically projected on that plane, its projection being a parallelogram RNTF. (F here falls on the centre by accident). Draw the diagonal RT. It is evident that the plane PR t T is perpendicular to the plane of the two axes, because PR is so. Therefore the compound motion P t is in the plane of a circle of revolution round some axis situated in the plane of the other two. Therefore produce TR, and draw GC cutting it at right angles in H, and let L P l be the circle, and PH a radius. P t is therefore a tangent, and pependicular to PH, and will meet RT in some point Q of the line MN. The particle P is in a state of rotation round the axis CG c, and its velocity is to the velocities round A a or B b as P t to P f or PN. The triangle PRN and OPN are similar. For PN the tangent is perpendicular to the radius OP, and PR is perpendicular to ON. Therefore OP : PN = PR : RN, and $RN = \frac{PR.PN}{OP}$. But the velocity of P round the axis B b is OP b. Therefore $RN = \frac{PR.OP.b}{OP}$, = PR.b. In like manner RF = PR.a. Therefore RF : RN = a : b = GD : GE. But NT : RN = sine NRT : sine NTR, and GD : GE = sine GED : sine GDE. Therefore sine NRT : sine NTR = sine GED : sine GDE. But RNT = EGD, for NR is perpendicular to EG and NT (being parallel

Rotation.

to IF) is perpendicular to DG. Therefore TR is perpendicular to ED, and C *c* is parallel to ED, and the rotation of the particle P is round an axis parallel to ED.

And since RN, RF, RT, are as the velocities *b*, *a*, *c*, round these different axes, and are proportional to EG DG, DE, we have *c* to *a* or to *b* as ED to GD or GE, and the proposition is demonstrated.

119 Expressed in general terms.

This theorem may be thus expressed in general terms. If a body revolves round an axis passing through its centre of gravity with the angular velocity *a*, while this axis is carried round another axis, also passing through its centre of gravity, with the angular velocity *b*, these two motions compose a motion of every particle of the body round a third axis, lying in the plane of the other two, and inclined to each of the former axes in angles whose sines are inversely as the angular velocities round them; and the angular velocity round this new axis is to that round one of the primitive axes as the sine of inclination of the two primitive axes is to the sine of the inclination of the new axis to the other primitive axis.

When we say that we owe the enunciation of this theorem to P. Frisi, we grant at the same time that something like it has been supposed or assumed by other authors. Newton seems to have considered it as true, and even evident, in homogeneous spheres; and this has been tacitly acquiesced in by the authors who followed him in the problem of the precession. Inferior writers have carelessly assumed it as a truth. Thus Nollet, Gravesande, and others, in their contrivances for exhibiting experiments for illustrating the composition of vortices, proceeded on this assumption. Even authors of more scrupulous research have satisfied themselves with a very imperfect proof. Thus Mr Landen, in his excellent dissertation on rotatory motion, Philosophical Transactions, Vol. lxvii. contents himself with showing, that by the equality and opposite directions of the motions round the axes A *a* and B *b*, the point C will be at rest, and from thence concludes that CG *c* will be the new axis of rotation. But this is exceedingly hasty (note also, that this dissertation was many years posterior to that of P. Frisi): For although the separate motions of the point C may be equal and opposite, it is by no means either a mathematical or a mechanical consequence that the body will turn round the axis C *c*. In order that the point C may remain at rest, it is necessary that all tendencies to motion be annihilated: this is not even thought of in making the assumption. Frisi has shown, that in the motion of every particle round the axis C *c*, there is involved a motion round the two axes A *a* and B *b*, with the velocities *a* and *b*; and it is a consequence of this, and of this only, that the impulses which would separately produce the rotations of every particle round A *a* and B *b* will, either in succession or in conjunction, produce a rotation round C *c*. Moreover, Mr Landen's not having attended to this, has led him, as we imagine, into a mistake respecting the velocity with which the axis changes its position; and though his process exhibits the path of evagation with accuracy, we apprehend that it does not assign the true times of the axes arriving at particular points of this path.

120 Conclusions deduced from this proposition.

It follows from this proposition, that if every particle of a body, whether solid or fluid, receives in one instant a separate impulse, competent to the production of a motion of the particle round an axis with a certain angular velocity, and another impulse competent to the production of a motion round another axis with a certain velocity, the combined effect of all these impulsions will be a motion of the whole system round a third axis given in position, with an angular velocity which is also given: and this motion will obtain without any separation or disunion of parts; for we see that a motion round two axes constitutes a motion round a third axis in every particle, and no separation would take place although the system were incoherent like a mass of sand, except by the action of the centrifugal forces arising from rotation. Mr Simpson therefore erred in his solution of the problem of the precession, by supposing another force necessary for enabling the particles of the fluid spheroid to accompany the equator when displaced from its former situation. The very force which makes the displacement produces the accompaniment, as far as it obtains, which we shall see presently is not to the extent that Mr Simpson and other authors who treat this problem have supposed.

121 For the same reason, if a body be turning round any axis, and every particle in one instant get an impulse precisely such as is competent to produce a given angular velocity round another axis, the body will turn round a third axis given in position, with a given angular velocity: for it is indifferent (as it is in the ordinary composition of motion) whether the forces act on a particle at once or in succession. The final motion is the same both in respect of direction and velocity.

122 Lastly, when a rigid body acquires a rotation round an axis by the action of an impulse on one part of it, and at the same time, or afterwards, gets an impulse on any part which, alone, would have produced a certain rotation round another axis, the effect of the combined actions will be a rotation round a third axis, in terms of this proposition; for when a rigid body acquires a motion round an axis, not by the simultaneous impulse of the precisely competent force on each particle, but by an impulse on one part, *there has been propagated to every particle* (by means of the connecting forces) an impulse precisely competent to produce the motion which the particle really acquires; and when a rigid body, already turning round an axis A *a* (fig. 17), receives an impulse which makes it actually turn round another axis C *c* there *has been propagated to each particle* a force precisely competent to produce, not the motion, but the *change* of motion which takes place in that particle, that is, a force which, when compounded with the inherent force of its primitive motion, produces the new motion; that is (by this theorem), a force which alone would have caused it to turn round a third axis B *b*, with a rotation making the other constituent of the actual rotation round C *c*.

123 This must be considered as one of the most important propositions in dynamics, and gives a great extension to the doctrine of the composition of motion. We see that rotations are compounded in the same manner as other motions, and it is extremely easy to discover the composition. We have only to suppose a sphere described round the centre of the body; and the equator of this sphere corresponding to any primitive position of the axis of rotation gives us the direction and velocity of the particles situated in it. Let another great circle cut this equator in any point; it will be the equator of another rotation. Set off an arch of each from the point

ROTATION.

PLATE CCCCLXVI.

Fig. 1.

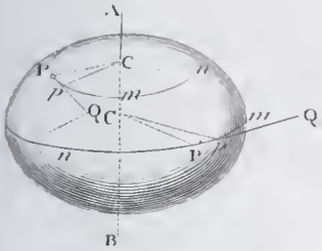


Fig. 2.

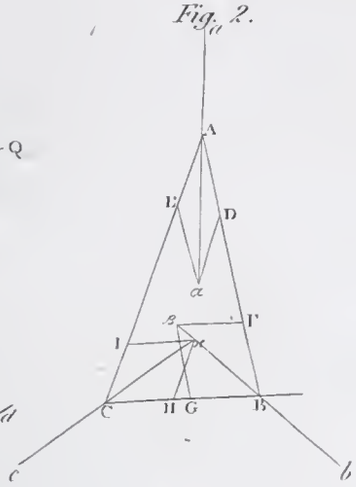


Fig. 3.

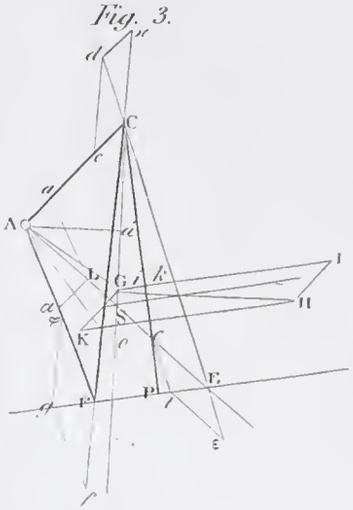


Fig. 4.

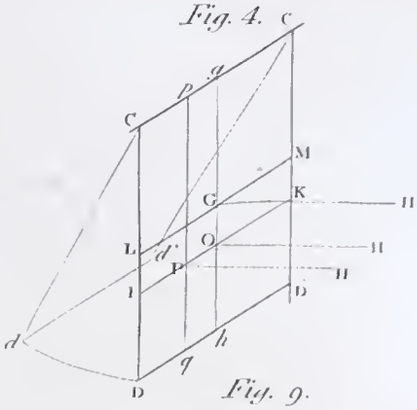
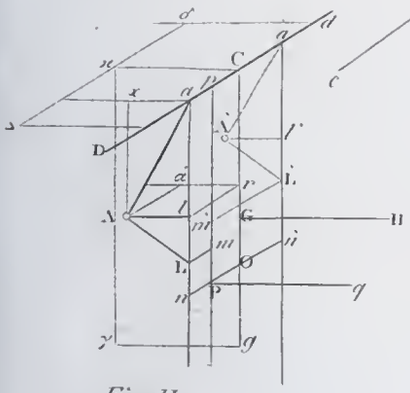


Fig. 5.



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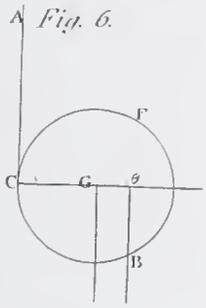

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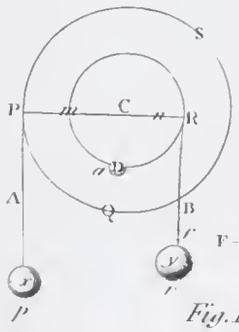


Fig. 8.

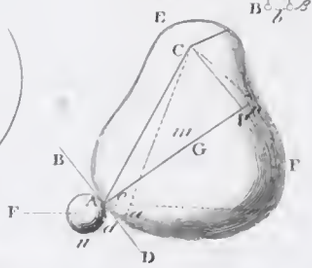


Fig. 9.

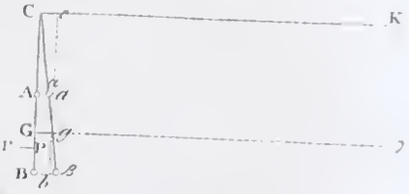


Fig. 10.

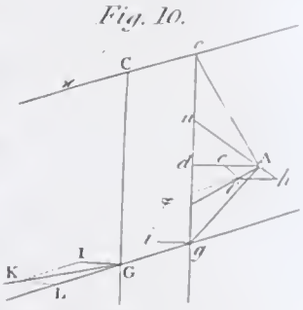


Fig. 11.

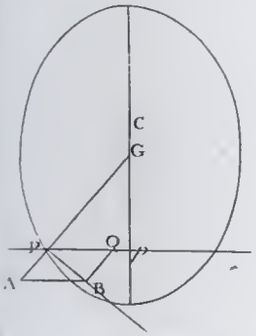


Fig. 12.

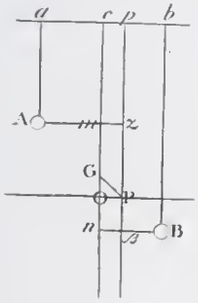


Fig. 14.

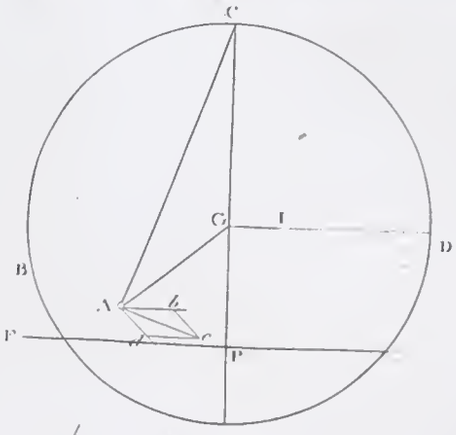


Fig. 15.

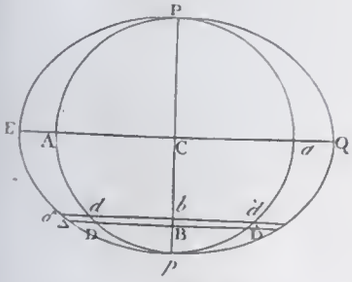


Fig. 13.

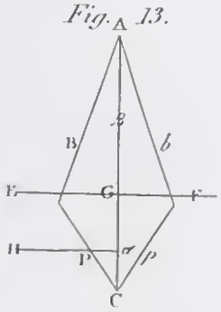


Fig. 16.

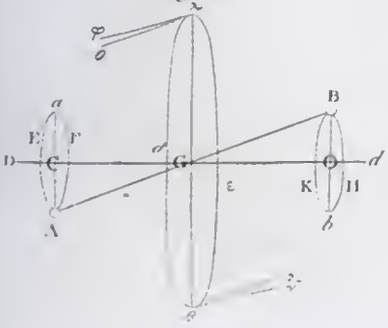
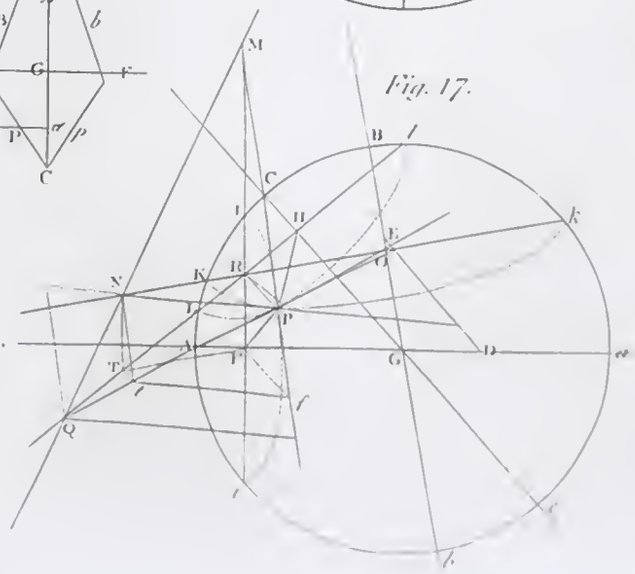
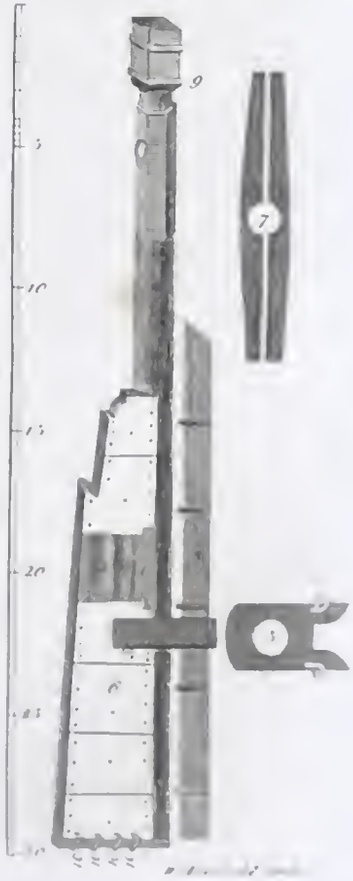


Fig. 17.



RUDDER.



Rotation.

point of intersection, proportional to the angular velocity of each rotation, and complete the spherical parallelogram. The great circle, which is the diagonal of this parallelogram, will be the equator of the rotation, which is actually compounded of the other two.

124 And thus may any two rotations be compounded. We have given an instance of this in the solution of the problem of the *Precession of the Equinoxes.*

125 It appears plainly in the demonstration of this theorem that the axis C *c* is a new line in the body. The change of rotation is not accomplished by a transference of the poles and equator of the former rotation to a new situation, in which they are again the poles and equator of the rotation; for we see that in the rotation round the axis C *c*, the particle of the body which was formerly the pole A is describing a circle round the axis C *c*. Not knowing this composition of rotations, Newton, Walmesly, Simpson, and other celebrated mathematicians, imagined, that the axis of the earth's rotation remained the same, but changed its position. In this they were confirmed by the constancy of the observed latitudes of places on the surface of the earth. But the axis of the earth's rotation really changes its place, and the poles shift through different points of its surface; but these different points are too near each other to make the change sensible to the nicest observation.

126 Respecting the position of the axis of rotation.

It would seem to result from these observations, that it is impossible that the axis of rotation can change its position in absolute space without changing its position in the body, contrary to what we experience in a thousand familiar instances; and indeed this is impossible by any one change. We cannot by the impulse of any one force make a body which is turning round the axis A *a* change its position and turn round the same material axis brought into the position C *c*. In the same way that a body must pass through a series of intermediate points, in going from one end of a line to the other, so it must acquire an infinite series of intermediate rotations (each of them momentary) before the same material axis passes into another position, so as to become an axis of rotation. A momentary impulse may make a great change of the position of the axis of rotation, as it may make in the velocity of a rectilineal motion. Thus although the rotation round A *a* be indefinitely small, if another equally small rotation be impressed round an axis B *b* perpendicular to A *a*, the axis will at once shift to C *c* half way between them; but a succession of rotations is necessary for carrying the primitive material axis into a new position, where it is again an axis. This transference, however, is possible, but gradual, and must be accomplished by a *continuation* of impulses totally different from what we would at first suppose. In order that A may pass from A to C, it is not enough that it gets an impulse in the direction AC. Such an impulse would carry it thither, if the body had not been whirling round A *a* by the mere perseverance of matter in its state of motion; but when the body is already whirling round A *a*, the particles in the circle IP *i* are moving in the circumference of that circle; and since that circle also partakes of the motion given to A, every particle in it must be *incessantly* deflected from the path in which it is moving. The *continual* agency of a force is therefore necessary for this purpose; and if this force be discontinued, the point A will immediately quit the plane of the arch AC, along which we are endeavouring to move it, and will start up.

127 This is the theorem which we formerly said would enable us to overcome the difficulties in the investigation of the axis of rotation.

128 The evagations of the poles of rotation by the action of centrifugal forces.

Thus we can discover what Mr Landen calls the evagations of the poles of rotation by the action of centrifugal forces: For in fig. 16. the known velocity of the ball A and the radius AC of its circle of rotation will give us the centrifugal force by which the balls *tend* to turn in the plane DA*d*BD. This gives the axis D *d* a tendency to move in a plane perpendicular to the plane of the figure; and its separation from the poles D and *d* does not depend on the separation of the connecting rod AB from its present inclination to D *d*, but on the angle which the spiral path of the ball makes with the plane of a circle of rotation round D *d*. The distance of the new poles from D and *d* is an arch of a circle which measures the angle made by the spiral with the circle of rotation round the primitive axis. This will gradually increase, and the mathematical axis of rotation will be describing a spiral round D and *d*, gradually separating from these points, and again approaching them, and coinciding with them again, at the time that the balls themselves are most of all removed from their primitive situation, namely, when A is in the place of B.

129 and the incipient axis in complicated cases.

The same theorem also enables us to find the incipient axis of rotation in the complicated cases which are almost inaccessible by means of the elementary principles of rotation.

130 Thus, when the centres of oscillation and percussion do not coincide, as we supposed in fig. 5. and 12. Suppose, first, that they do coincide, and find the position of the axis *a b*, and the angular velocity of the rotation. Then find the centre of percussion, the axis P *p*, and the momentum round it, and the angular velocity which this momentum would produce. Thus we have obtained two rotations round given axes, and with given angular velocities. Compound these rotations by this theorem, and we obtain the required position of the true incipient axis of rotation, and the angular velocity, without the intricate process which would otherwise have been necessary.

131 If the body is of such a shape, that the forces in the plane DCG do not balance each other, we shall then discover a momentum round an axis perpendicular to this plane. Compound this rotation in the same manner with the rotation round D *d*.

132 Position of the axis when the centres of percussion and rotation do not coincide.

And from this simple view of the matter we learn (what would be difficult to discover in the other way), that when the centre of percussion does not coincide with that of rotation, the axis is in the plane DGC, though not perpendicular to PG. But when there is a momentum round an axis perpendicular to this plane, the incipient axis of rotation is neither perpendicular to PC, nor in a plane perpendicular to that passing through the centre in the direction of the impelling force.

We must content ourselves with merely pointing out these tracts of investigation to the curious reader, and recommending the cultivation of this most fruitful theorem of Father Frisi.

133 Concluding remarks on seamanship.

These are by no means speculations of mere curiosity, interesting to none but mathematicians: the noblest art which

which is practised by man must receive great improvement from a complete knowledge of this subject. We mean the art of SEAMANSHIP. A ship, the most admirable of machines, must be considered as a body in free space, impelled by the winds and waters, and continually moved round spontaneous axes of conversion, and incessantly checked in these movements. The trimming of the sails, the action of the rudder, the very disposition of the loading, all affect her versatility. An experienced seaman knows by habit how to produce and facilitate these motions, and to check or stop such as are inconvenient. Experience, without any reflection or knowledge how and why, informs him what position of the rudder produces a deviation from the course. A sort of common sense tells him, that, in order to make the ship turn her head away from the wind, he must increase the surface or the obliquity of the head sails, and diminish the power of the sails near the stern. A few other operations are dictated to him by this kind of common sense; but few, even of old seamen, can tell why a ship has such a tendency to bring her head up in the wind, and why it is so necessary to crowd the fore part of the ship with sails; fewer still know that a certain shifting of the loading will facilitate some motions in different cases; that the crew of a great ship running suddenly to a particular place shall enable the ship to accomplish a movement in a stormy sea which could not be done otherwise; and perhaps not one in ten thousand can tell why this procedure will be successful. But the mathematical inquirer will see all this; and it would be a most valuable acquisition to the public, to have a manual of such propositions, deduced from a careful and judicious consideration of the circumstances, and freed from that great complication and intricacy which only the learned can unravel, and expressed in a familiar manner, clothed with such reasoning as will be intelligible to the unlearned; and though not accurate, yet persuasive. Mr Bouguer, in his *Traité du Navire*, and in his *Manœuvre des Vaisseaux*, has delivered a great deal of useful information on this subject; and Mr Bezout has made a very useful abstract of these works in his *Cours de Mathematique*. But the subject is left by them in a form far too abstruse to be of any general use: and it is unfortunately so combined with or founded on a false theory of the action and resistance of fluids, that many of the propositions are totally inconsistent with experience, and many maxims of seamanship are false. This has occasioned these doctrines to be neglected altogether. Few of our professional seamen have the preparatory knowledge necessary for improving the science; but it would be a work of immense utility, and would require great reputation to the person who successfully prosecutes it.

We shall mention under the article SEAMANSHIP the chief problems, and point out the mechanical principles by which they may be solved.

ROTHERAM, a town in the west riding of Yorkshire, seated on the river Don, near which there is a handsome stone-bridge. It is a well-built place, and the market is large for provisions. W. Long. 1. 10. N. Lat. 53. 25.

ROTHSAY, a town in the isle and county of Bute, in Scotland. It is the capital of the county, is a well-built town of small houses, contains above 5000 inhabitants, and is within these few years much improved. It has a good pier, and is seated at the bottom of a fine bay, whose mouth lies exactly opposite to Loch Steven in Cowal. Here is a fine depth of water, a secure retreat, and a ready navigation down the frith for an export trade. Magazines of goods for foreign parts might be most advantageously erected here. The spinning of yarn has been long carried on in Rothsay, and lately the cotton manufacture has been introduced. The herring fishery has been also long a great source of trade in this place. W. Long. 4. 45. N. Lat. 55. 50.

Rothsay gives to the prince of Scotland the title of Duke, which was formerly accompanied with suitable revenues, powers, and privileges. It was bestowed on the prince in 1398, when John of Gaunt, who is styled John Duke of Aquitaine and Lancaster, uncle to the king of England, and David, who was previously styled earl of Carrick, eldest son of the king of Scotland, met for the purpose of settling the borders, and terminating all matters in dispute. In this way it is supposed the title of Duke was introduced into Scotland.

ROTTBOELLIA, a genus of plants belonging to the triandria class. See BOTANY *Index*.

ROTONDO, or ROTUNDO, in *Architecture*, an appellation given to any building that is round both within and without; whether it be a church, a saloon, or the like. The most celebrated rotundo of the ancients is the pantheon at Rome. See PANTHEON.

ROTTEN-STONE, a mineral found in Derbyshire, and used by mechanics for all sorts of finer grinding and polishing, and sometimes for cutting stones. According to Ferber, it is a tripoli mixed with calcareous earth.

ROTTENNESS. See PUTREFACTION.

ROTTERDAM, is a city in the province of Holland, in E. Long. 4. 25. N. Lat. 51. 55. situated on the north bank of the river Maese, about 37 miles south of Amsterdam, nine south-east of the Hague, and 15 to the eastward of Briel. It is a large and populous city, of a triangular figure, handsomely built of brick, the streets wide and well paved. There are ten gates to the town, six of which are at the land side and four at the side of the Maese. It is supposed to take its name from the *Roter*, or *Rotter*, a little river that falls into the canals of this city, and from *Dam*, a dike. It is uncertain when it was first built; and though it is supposed to be very ancient, yet we find no mention made of it before the 13th century. In the year 1270 it was surrounded with ramparts, and honoured with several privileges; but 27 years after it was taken by the Flemings. In the year 1418, Brederode chief of the Hacks made himself master of it; since which time it has continued yearly to increase by means of the conveniency of its harbour. Its arms are vert, a pale argent, quarterly in a chief on the first and third, or, a lion spotted sable, on the second and fourth a lion spotted gules.

Rotterdam is not reckoned one of the principal cities

Rotterdam.

ties of the province, because it has not been always in its present flourishing condition. The Dutch call it the first of the second rank, whereas it ought to be esteemed the second of the first, being, next to Amsterdam, the most trading town in the United Provinces. Its port is very commodious; for the canals, which run through most parts of the town, bring the ships, some of 200 or 300 tons, up to the merchant's door; a conveniency for loading and unloading which is not to be found in other places. The great ships go up into the middle of the town by the canal into which the Maese enters by the old head, as it comes out by the new. A stranger, upon his first entering this place, is astonished at the beautiful confusion of chimneys intermixed with tops of trees with which the canals are planted, and streamers of vessels; insomuch that he can hardly tell whether it be fleet, city, or forest. The Harring Vliet is a very fine street; most of the houses are new, and built of hewn stone; but the grandest as well as most agreeable street in Rotterdam is the Bomb Quay, which lies parallel with the Maese; on one side it is open to the river, and the other is ornamented with a grand façade of the best houses in the city, inhabited chiefly by the English; they are five or six stories high, massy and very clumsy: wherever there is any attempt at ornament, it is the worst that can be conceived. One sees no Grecian architecture, except Doric entablatures, stuck upon the top of the upper story, without pilasters; Ionic volutes, turned often the wrong way, and an attempt at Corinthian capitals, without any other part of the order. The doors are large, and stuck with great knobs and clumsy carving; you ascend to them, not in front, but by three or four steps going up on each side, and you are assisted by iron rails of a most immense thickness. These houses are almost all window; and the window shutters and frames being painted green, the glass has all a green cast, which is helped by the reflection from the trees that overshadow their houses, which, were it not for this circumstance, would be intolerably hot, from their vicinity to the canals. Most of the houses have looking glasses placed on the outsides of the windows, on both sides, in order that they may see every thing which passes up and down the street. The stair-cases are narrow, steep, and come down almost to the door. In general, the houses rise with enormous steep roofs, turning the gable end to the street, and leaning considerably forward, so that the top often projects near two feet beyond the perpendicular. The Bomb Quay is so broad, that there are distinct walks for carriages and foot passengers, lined and shaded with a double row of trees.—You look over the river on some beautiful meadows, and a fine avenue of trees, which leads to the Pest-house: it seems to be an elegant building, and the trees round it are so disposed as to appear a thick wood. This street is at least half a mile in length, and extends from the old to the new head, the two places where the water enters to fill the canals of this extensive city. When water runs through a street, it then assumes the name of a canal, of which kind the Heeren-fleet has the pre-eminence; the houses are of free-stone, and very lofty; the canal is spacious, and covered with ships: at one end stands the English church, a neat pretty building, of which the bishop of London is ordinary.

Peckam's Tour through Holland, &c.

This port is much more frequented by the British merchants than Amsterdam, insomuch that after a frost, when the sea is open, sometimes 300 sail of British vessels sail out of the harbour at once. There is always a large number of British subjects who reside in this town, and live much in the same manner as in Great Britain. The reason of the great traffic between this place and England, is because the ships can generally load and unload, and return to England from Rotterdam, before a ship can get clear from Amsterdam and the Texel. Hence the English merchants find it cheaper and more commodious, after their goods are arrived at Rotterdam, to send them in boats over the canals to Amsterdam. Another great advantage they have here for commerce is, that the Maese is open, and the passage free from ice, much sooner in the spring than in the Y and Zuyder-sea, which lead to Amsterdam.

The glass-house here is one of the best in the seven provinces; it makes abundance of glass-toys and enamelled bowls, which are sent to India, and exchanged for china-ware, and other oriental commodities.

The college of admiralty here is called the *college of the Maese*, the chief of all Holland and the United Provinces. The lieutenant-general, admiral of Holland, is obliged to go on board of a Rotterdam ship in the Maese when he goes to sea, and then he commands the squadron of the Maese.

On the east side of the city there is a large bason and dock, where ship-carpenters are continually employed for the use of the admiralty, or of the East India company. But the largest ships belonging to the admiralty of Rotterdam are kept at Helvoetsluys, as the most commodious station, that place being situated on the ocean; for it requires both time and trouble to work a large ship from the dock of Rotterdam to the sea.

Rotterdam has four Dutch churches for the established religion. There is one thing very remarkable in respect to the great church, that the tower which leaned on one side was set up straight in the year 1655, as appears by the inscription engraved on brass at the bottom of the tower withinside. In the choir of this church are celebrated, with no small solemnity, the promotions made in the Latin schools. Besides, there are two English churches, one for those of the church of England and the other for the Presbyterians; and one Scotch church; as likewise one Lutheran, two Arminian, two Anabaptist, four Roman Catholic chapels, and one Jewish synagogue.

Though the public buildings here are not so stately as those of Amsterdam and some other cities, yet there are several of them well worth seeing. The great church of St Lawrence is a good old building, where are many stately monuments of their old admirals. From the top of this church one may see the Hague, Delft, Leyden, Dort, and most of the towns of South Holland. There are several fine market-places, as three fish-markets, the great-market, the new-market, and the hogs-market. The stadthouse is an old building, but the chambers large and finely adorned. The magazines for fitting out their ships are very good structures. The exchange is a noble building, begun in the year 1720, and finished in 1736. Upon the great bridge in the market-place there is a fine brass statue erected to the great Erasmus, who was born in this city in 1467, and died at Basil in Switzerland. He is represented

sented in a furred gown, and a round cap, with a book in his hand. The statue is on a pedestal of marble, surrounded with rails of iron. Just by, one may see the house where this great man was born, which is a very small one, and has the following distich written on the door:

Ædibus his ortus, mundum decoravit, Erasmus,
Artibus, ingenio, religione, fide.

Rotterdam is estimated to contain about 50,000 inhabitants.

ROTULA, in *Anatomy*, the small bone of the knee, called also *patella*. See ANATOMY.

ROTUNDUS, in *Anatomy*, a name given to several muscles otherwise called *teres*.

ROUAD. See ARADUS.

ROUANE, or ROANE, an ancient and considerable town in France, in the department of Loire, with the title of a duchy; seated on the river Loire, at the place where it begins to be navigable for boats. It is an entrepot for the commerce between Lyons, Paris, Orleans, &c. E. Long. 4. 9. N. Lat. 46. 2.

ROUCOU, in *Dyeing*, the same with ANOTTA and BIXA. See DYEING.

ROUEN, a city of France, and capital of the department of the Lower Seine, formerly capital of Normandy, with an archbishop's see, a college, and an academy. It is seven miles in circumference, and surrounded with six suburbs; and contained before the revolution 35 parishes, and 24 convents for men and women. The metropolitan church has a very handsome front, on which are two lofty steeples. The great bell is 13 feet high and 11 in diameter. The church of the Benedictine abbey is much admired by travellers. There is a great number of fountains. The number of the inhabitants in 1817 was 81,000. This is one of the most industrious towns in France. There are manufactures of cotton and woollen of a great variety of kinds, and some on an extensive scale. There are also manufactures of silk, wool cards, refined sugar, and chemical substances. It is seated on the river Seine; and the tide rises so high, that vessels of 200 tons may come up to the quay: but one of the greatest curiosities is the bridge, of 270 paces in length, supported by boats, and consequently is higher or lower according to the tide. It is paved, and there are ways for foot passengers on each side, with benches to sit upon; and coaches may pass over it at any hour of the day or night. It is often called *Roan* by English historians; and is 50 miles south-west of Amiens, and 70 north-west of Paris.

Though large, and enriched by commerce, Rouen is not an elegant place. The streets are almost all narrow, crooked, and dirty; the buildings old and irregular. It was fortified by St Louis in 1253, but the walls are now demolished. The environs, more particularly the hills which overlook the Seine, are wonderfully agreeable, and covered with handsome villas. E. Long. 1. 10. N. Lat. 49. 26.

ROVERE, or ROVEREDO, a strong town of the Tyrol, on the confines of the republic of Venice; seated on the river Adige, at the foot of a mountain, and on the side of a stream, over which there is a bridge, defended by two large towers and a strong castle, 10 miles south of Trent. The town is tolerably well built, and governed by a chief magistrate, styled a *podestat*. There are several churches and convents, that contain nothing worthy of notice. The most remarkable thing, and what they call the great *wonder of Roveredo*, is its spinning-house for a manufacture of silk, in which they have a great trade here to the fairs of Bolzano. They have also a very good trade in wine. Between Trent and Roveredo is the strong fort of Belem, belonging to the house of Austria. It is situated on a rock, and commands the roads at the foot of the mountain. E. Long. 11. 3. N. Lat. 45. 53.

ROUERGUE, a province of France, in the government of Guienne; bounded on the east by the Cevennes and Gevaudan, on the west by Querci, on the north by the same and Auvergne, and on the south by Languedoc. It is 75 miles in length, and 50 in breadth; not very fertile, but feeds a number of cattle, and has mines of copper, iron, alum, vitriol, and sulphur. It is divided into a county, and the upper and lower marche. It now forms the department of Aveiron. Rhodez is the capital town.

ROVIGNO, a town of Italy, in Istria, with two good harbours, and quarries of fine stone. It is seated in a territory which produces excellent wine, in a peninsula on the western coast. The population is estimated at 17,000. E. Long. 13. 53. N. Lat. 45. 14.

ROVIGO, is a town of Italy, in the territory of Venice, and capital of the Polesin di Rovigo, in E. Long. 12. 25. N. Lat. 45. 6. It is a small place, poorly inhabited, and encompassed with ruinous walls. Formerly it belonged to the duke of Ferrara, but has been subject to the Venetians since 1500, and is famous for being the birth-place of that learned man Cœlius Rhodoginus. It was built upon the ruins of Adria, anciently a noble harbour one mile from Rovigo, that gave name to the gulf, but now a half drowned village, inhabited by a few fishermen.

ROUNDELAY, or ROUNDO, a sort of ancient poem, deriving its name, according to Menage, from its form, and because it still turns back again to the first verse, and thus goes round. The common roundelay consists of 13 verses, eight of which are in one rhyme and five in another. It is divided into couplets; at the end of the second and third of which the beginning of the roundelay is repeated; and that, if possible, in an equivocal or punning sense. The roundelay is a popular poem in France, but is little known among us. Marot and Voiture have succeeded the best in it. Rapin remarks, that if the roundelay be not very exquisite, it is intolerably bad. In all the ancient ones, Menage observes, that the verse preceding has a less complete sense, and yet joins agreeably with that of the close without depending necessarily thereon. This rule, well observed, makes the roundelay more ingenious, and is one of the finesses of the poem. Some of the ancient writers speak of the roundelay or roundel as a kind of air appropriated to dancing; and in this sense the term seems to indicate little more than dancing in a circle with the hands joined.

ROUND-HOUSE, a kind of prison for the nightly watch in London to secure disorderly persons till they can be carried before a magistrate.

Round-House, in a ship, the uppermost room or cabin on the stern of a ship, where the master lies.

ROUNDS.

Rounds. Roussillon.

ROUNDS, in military matters, a detachment from the main-guard, of an officer or a non-commissioned officer and six men, who go round the rampart of a garrison, to listen if any thing be stirring without the place, and to see that the centinels be diligent upon their duty, and all in order. In strict garrisons the rounds go every half-hour. The centinels are to challenge at a distance, and to rest their arms as the round passes. All guards turn out, challenge, exchange the parole, and rest their arms, &c.

Rounds are ordinary and extraordinary. The ordinary rounds are three; the town-major's round, the grand-round, and visiting-round.

Manner of going the Rounds. When the town-major goes his round, he comes to the main-guard, and demands a serjeant and four or six men to escort him to the next guard; and when it is dark, one of the men is to carry a light.

As soon as the centry at the guard perceives the round coming, he shall give notice to the guard, that they may be ready to turn out when ordered; and when the round is advanced within about 20 or 30 paces of the guard, he is to challenge briskly; and when he is answered by the serjeant who attends the round, *Town-major's round*, he is to say, *Stand round!* and rest his arms; after which he is to call out immediately, *Serjeant, turn out the guard, town-major's round.* Upon the centry calling, the serjeant is to turn out the guard immediately, drawing up the men in good order with shouldered arms, the officer placing himself at the head of it, with his arms in his hand. He then orders the serjeant and four or six men to advance towards the round, and challenge: the serjeant of the round is to answer, *Town-major's round;* upon which the serjeant of the guard replies, *Advance, serjeant, with the parole!* at the same time ordering his men to rest their arms. The serjeant of the round advances alone, and gives the serjeant of the guard the parole in his ear, that none else may hear it; during which period the serjeant of the guard holds the spear of his halbert at the other's breast. The serjeant of the round then returns to his post, whilst the serjeant of the guard leaving his men to keep the round from advancing, gives the parole to his officer. This being found right, the officer orders his serjeant to return to his men; says, *Advance, town-major's round!* and orders the guard to rest their arms; upon which the serjeant of the guard orders his men to wheel back from the centre, and form a lane, through which the town-major is to pass (the escort remaining where they were), and go up to the officer and give him the parole, laying his mouth to his ear. The officer holds the spear of his esponton at the town-major's breast while he gives him the parole.

The design of rounds is not only to visit the guards, and keep the centinels alert; but likewise to discover what passes in the outworks, and beyond them.

ROUSSILLON, a province of France, in the Pyrenees, bounded on the east by the Mediterranean sea, on the west by Cerdagne, on the north by Lower Languedoc, and on the south by Catalonia, from which it is separated by the Pyrenees. It is a fertile country, about 50 miles in length, and 25 in breadth, and remarkable for its great number of olive-trees. Now the department of Eastern Pyrenees.

Rousseau.

ROUSSEAU, James, an eminent painter, was born at Paris in the year 1630, and studied first under Swanevelt, who had married one of his relations; after which he improved himself by travelling into Italy, practising solely in perspective, architecture, and landscape. On his return home, he was employed at Marly. He distinguished himself very much in painting buildings, and by his knowledge of, and attention to the principles of perspective. Louis XIV. employed him to decorate his hall of devices at St Germaine-en-Laie, where he represented the operas of Lulli. But being a Protestant, he quitted France on the persecution of his brethren, and retired to Swisserland. Louis invited him back; he refused, but sent his designs, and recommended a proper person to execute them. After a short stay in Swisserland, he went to Holland; whence he was invited to England by Ralph duke of Montague, to adorn his new house in Bloomsbury, where he painted much. Some of his pictures, both in landscape and architecture, are over doors at Hamptoncourt; and he etched some of his own designs. His perspectives having been most commonly applied to decorate courts or gardens, have suffered much from the weather. Such of them as remain are monuments of an excellent genius. The colours are durable and bright, and the choice of them most judicious. He died in Soho-square, about the year 1693, aged 63.

Rousseau, *John Baptist*, a celebrated French poet, was born at Paris, in April 1671. His father, who was a shoemaker in good circumstances, made him study in the best colleges of Paris, where he distinguished himself by his abilities. He at length applied himself entirely to poetry, and soon made himself known by several short pieces, that were filled with lively and agreeable images, which made him sought for by persons of the first rank, and men of the brightest genius. He was admitted in quality of *eléve*, or pupil, into the academy of Inscriptions and Belles Lettres, in 1701, and almost all the rest of his life attached himself to some great men. He attended Marshal Tallard into England, in quality of secretary, and here contracted a friendship with St Evremond. At his return to Paris, he was admitted into the politest company, lived among the courtiers, and seemed perfectly satisfied with his situation; when, in 1708, he was prosecuted for being the author of some couplets, in which the characters of several persons of wit and merit were blackened by the most atrocious calumnies. This prosecution made much noise; and Rousseau was banished in 1712 out of the kingdom, to which he was never more to return, by a decree of the parliament of Paris. However, he always steadily denied, and even on his death-bed, his being the author of these couplets.—From the date of this sentence he lived in foreign countries, where he found illustrious protectors. The count de Luc, ambassador of France, in Swisserland, took him into his family, and studied to render his life agreeable. He took him with him to the treaty of Baden in 1714, where he was one of the plenipotentiaries, and presented him to Prince Eugene, who entertaining a particular esteem for him, took him to Vienna, and introduced him to the emperor's court. Rousseau lived about three years with Prince Eugene; but having lost his favour by satirising one of his mistresses, he retired to Brussels, where he afterwards usually resided, and where he

he met with much attention and much generosity, as we shall soon mention.—It was there that his disputes with Voltaire commenced, with whom he had become acquainted at the college of Louis the Great, who then much admired his turn for poetry. At that time Voltaire assiduously cultivated the acquaintance of Rousseau, and made him a present of all his works; and Rousseau, flattered by his respect, announced him as a man who would one day be a glory to the age. The author of the Henriade continued to consult him about his productions, and to lavish on him the highest encomiums, while their friendship daily increased. When they again met at Brussels, however, they harboured the blackest malice against one another. The cause of this enmity, as Rousseau and his friends tell the story, was a lecture which he had composed from his Epistle to Julia, now Urania. This piece frightened Voltaire, as it plainly discovered his rage against him. The young man, vexed at these calumnies, understood the whole as thrown out against him. This is what Rousseau asserts. But his adversaries, and the friends of the poet whom he cried down suspected him perhaps rather rashly, of having employed sarcasms, because he thought that his own reputation was in danger of being eclipsed by that of his rival. What is very singular, these two celebrated characters endeavoured each of them to prepossess the public with a bad opinion of the other, which they themselves never entertained in reality, and to smother in their breast that esteem for each other which, in defiance of all their exertions, still held its place. Rousseau, from the period of this dispute, always represented Voltaire as a buffoon, as a writer possessing neither taste nor judgment, who owed all his success to a particular mode which he pursued. As a poet he considered him as inferior to Lucan, and little superior to Pradon. Voltaire treated him still worse. Rousseau, according to him, was nothing better than a plagiarist, who could make shift to rhime, but could not make any reflections; that he had nothing but the talent of arranging words, and that he had even lost that in foreign countries. He thus addresses him, in a piece little known.

Aussitôt le Dieu qui m'inspire
T'arracha le luth et la lyre
Qu'avoient déshonorés tes mains;
Tu n'es plus qu'un reptile immonde,
Rebut du Parnasse et du monde
Enséveli dans tes venins.

In consequence of the little esteem in which Rousseau was held at Brussels, he could never forget Paris. The grand-prior of Vendome, and the baron de Breteuil, solicited the regent duke of Orleans to allow him to return; which favour was obtained. But our poet, before he would make use of the *lettres de rapel* issued in his favour, demanded a review of his process, which he wished to be repealed, not as a matter of favour, but by a solemn judgment of court; but his petition was refused. He then came over, in 1721, to England, where he printed *A Collection of his Works*, in 2 vols. 12mo, at London. This edition, published in 1723, brought him near 10,000 crowns, the whole of which he placed in the hands of the Ostend company. The affairs of this company, however, soon getting into confusion, all those who had any money in their hands lost the whole of it, by which unfortunate event Rousseau, when arrived at that age when he stood most in need of the comforts of fortune, had nothing to depend upon but the generosity of some friends. Boutet, public notary in Paris, was peculiarly generous and attentive to him. He found a still greater asylum in the duke d'Aremberg, whose table was open to him at all times; who being obliged in 1733 to go into the army in Germany, settled on him a pension of 1500 livres. But unfortunately he soon lost his good opinion, having been imprudent enough to publish in a journal (of which Voltaire accused him), that the duke d'Aremberg was the author of those verses for which he himself had been banished France. He was therefore dismissed from his table, and his pride would not allow him to accept of the pension after this rupture. Brussels now became insupportable to him; and the count de Luc, and M. de Senozan, receiver-general of the church revenue, being informed of his disappointments, invited him to come privately to Paris, in the hopes of procuring a diminution of the period of his banishment. Some time previous to this Rousseau had published two new letters; one to P. Brumoy, on tragedy; the other to Rollin, on history. It is said, he expected from his letter to Brumoy to get the favour of all the Jesuits; and from the one to Rollin, the patronage of the Jansenists. He had likewise written an Ode, in praise of Cardinal de Fleury, on Peace which met with a favourable reception although it was not equal to some of his former pieces. He imagined his return to Paris would be found no difficult matter. He attempted it, and found he could not obtain a pass for a single year. Some say, that Rousseau had irritated some persons in power, by an allegory, called *The Judgment of Pluto;* in which piece he describes one of the principal judges, whose skin Pluto had caused to be taken off and stretched out on the seat in the bench. This satire, joined to the secret machinations of enemies, rendered all the attempts of his friends to procure his return abortive. After having staid three months at Paris, he returned to Brussels in February 1740, at which place he died March 17. 1741, strongly impressed with religious sentiments. Immediately before he received the viaticum, he protested he was not the author of those horrid verses which had so much embittered his life; and this declaration, in the opinion of the virtuous part of mankind, will be considered as a sufficient proof of his innocence. Some have said that Rousseau was profane, troublesome, capricious, forward, vindictive, envious, a flatterer, and a satirist. Others again represent him as a man full of candour and openness, a faithful and grateful friend, and as a Christian affected with a sense of religion.—Amidst such widely varied accounts it is difficult to form an opinion of his character. Such of our readers as wish to know more of this great poet may consult the Dictionary of M. Chaupepie, written with as much precision as impartiality, who endeavours to give a just idea of his character. From what he says, it does not appear that Rousseau can be cleared from the accusation brought against him of having attacked his benefactors. We believe he may be much more easily freed from the imputation brought against him by some of having disowned his father: for what occasion had Rousseau to conceal the obscurity of his birth? It exalted his own merit.

M. Seguy.

M. Segny, in concert with M. the prince of la Tour Tassis, has given a very beautiful edition of his works, agreeable to the poet's last corrections. It was published in 1743, at Paris, in three vols. 4to, and in 4 vols. 12mo, containing nothing but what was acknowledged by the author as his own. It contains, 1. Four Books of Odes, of which the first are sacred odes, taken from the Psalms. "Rousseau (says Ferron) unites in himself Pindar, Horace, Anacreon, and Malherbe. What fire, what genius, what flights of imagination, what rapidity of description, what variety of affecting strokes, what a crowd of brilliant comparisons, what richness of rhymes, what happy versification; but especially what inimitable expression! His verses are finished in the highest style of perfection that French verse is capable of assuming." The lyric compositions of Rousseau are, in general, above mediocrity. All his odes are not, however, of equal merit. The most beautiful are those which he has addressed to count de Luc, to Malherbe, to Prince Eugene, to Vendome, to the Christian princes; his Odes on the death of the prince de Conti, on the battle of Peterwaradin; and the Ode to Fortune, although there are certainly some few weak stanzas to be met with in it. There is considerable neatness in the composition of the Ode to a Widow, in his stanzas to the Abbé de Chaulieu, in his addresses to Rossignol, in his Odes to Count de Bonneval, to M. Duche, and to Count de Sinzindorf; and it is to be lamented that he wrote so few pieces of this kind, from which his genius seemed to lead him with difficulty. 2. Two Books of Epistles, in verse. Although these do not want their beauties, yet there prevails too much of a misanthropic spirit in them, which takes away greatly from their excellence. He makes too frequent mention of his enemies and his misfortunes; he displays those principles which are supported less on the basis of truth than on those various passions which ruled his mind at the time. He puts forth his anger in paradoxes. If he be reckoned equal to Horace in his odes, he is far inferior in his epistles. There is much more philosophy in the Roman poet than in him. 3. *Cantatas.* He is the father of this species of poetry, in which he stands unrivalled. His pieces of this sort breathe that poetical expression, that picturesque style, those happy turns, and those easy graces, which constitute the true character of this kind of writing. He is as lively and impetuous as he is mild and affecting, adapting himself to the passions of those persons whom he makes to speak. "I confess (says M. de la Harpe) that I find the cantatas of Rousseau more purely lyric than his odes, although he rises to greater heights in these. I see nothing in his cantatas but bold and agreeable images. He always addresses himself to the imagination, and he never becomes either too verbose or too prolix. On the contrary, in some of the best of his odes, we find some languishing stanzas, ideas too long delayed, and verses of inexcusable meanness. 4. *Allegories*, the most of which are happy, but some of them appear forced. 5. *Epigrams*, after the manner of Martial and Marot. He has taken care to leave out of this edition those pieces which licentiousness and debauchery inspired. They bear, indeed, as well as his other pieces, the marks of genius; but such productions are calculated only to dishonour their authors, and corrupt the heart of those who read them. 5. A Book of *Poems on Various Subjects*, which sometimes want both ease and delicacy. The most distinguished are two eclogues, imitated from Virgil. 6. Four comedies in verse; the *Flatterer*, whose character is well supported; the *Imaginary Forefathers*, a piece which had much less success, although it affords sufficiently good sentiment; the *Capricious Man*, and the *Dupe of Herself*, pieces of very inconsiderable merit. 7. Three comedies in prose; the *Coffee-house*, the *Magic Girdle*, and the *Madragore*, which are little better than his other theatrical pieces. The theatre was by no means his forte; he had a genius more suited for satire than comedy, more akin to Boileau's than Moliere's. 8. A *Collection of Letters*, in prose. In this edition he has selected the most interesting.—There is a larger collection in 5 volumes. This last has done at the same time both injury and honour to his memory. Rousseau in it speaks both in favour of and against the very same persons. He appears too hasty in tearing to pieces the characters of those who displease him. We behold in them a man of a steady character and an elevated mind, who wishes to return to his native country only that he might be enabled completely to justify his reputation. We see him again corresponding with persons of great merit and uncommon integrity, with the Abbé d'Olivet, Racine the son, the poets La Fosse and Duche, the celebrated Rollin, M. le Franc de Pompignan, &c. &c. We meet also with some anecdotes and exact judgments of several writers. A bookseller in Holland has published his port-folio, which does him no honour. There are, indeed, some pieces in this wretched collection which did come from the pen of Rousseau; but he is less to be blamed for them than they are who have drawn these works from that oblivion to which our great poet had consigned them. A pretty good edition of his *Select Pieces* appeared at Paris in 1741, in a small 12mo volume. His portrait, engraved by the celebrated Aved, his old friend, made its appearance in 1778, with the following motto from Martial:

Certior in nostro carmine vultus erit.

Rousseau, *John-James*, was born at Geneva, June 28. 1712. His father was by profession a clock and watch maker. At his birth, which, he says, was the first of his misfortunes, he endangered the life of his mother, and he himself was for a long time after in a very weak and languishing state of health; but as his bodily strength increased, his mental powers gradually opened, and afforded the happiest presages of future greatness. His father, who was a citizen of Geneva, was a well-informed tradesman; and in the place where he wrought he kept a Plutarch and a Tacitus, and these authors of course soon became familiar to his son. A rash juvenile step occasioned his leaving his father's house. "Finding himself a fugitive, in a strange country, and without money or friends, he changed (says he himself) his religion, in order to procure a subsistence." Bornex, bishop of Annecy, from whom he sought an asylum, committed the care of his education to Madame de Warrens, an ingenious and amiable lady, who had in 1726 left part of her wealth, and the Protestant religion, in order to throw herself into the bosom of the church. This generous lady served in the triple capacity of a mother, a friend, and a lover, to the new proselyte, whom she regarded as her son. The necessity of procuring for himself

some settlement, however, or perhaps his unsettled disposition, obliged Rousseau often to leave this tender mother.

He possessed more than ordinary talents for music; and the abbé Blanchard flattered his hopes with a place in the royal chapel, which he, however, failed in obtaining for him; he was therefore under the necessity of teaching music at Chamberi. He remained in this place till 1741, in which year he went to Paris, where he was long in very destitute circumstances. Writing to a friend in 1743, he thus expresses himself: "Every thing is dear here, but especially bread." What an expression; and to what may not genius be reduced! Meanwhile he now began to emerge from that obscurity in which he had hitherto been buried. His friends placed him with M. de Montaigne, ambassador from France to Venice. According to his own confession, a proud misanthropy and a peculiar contempt of the riches and pleasures of this world, constituted the chief traits in his character, and a misunderstanding soon took place between him and the ambassador. The place of depute, under M. Dupin, farmer-general, a man of considerable parts, gave him some temporary relief, and enabled him to be of some benefit to Madame de Warrens his former benefactress. The year 1750 was the commencement of his literary career. The academy of Dijon had proposed the following question: "Whether the *revival* of the arts and sciences has contributed to the refinement of manners?" Rousseau at first inclined to support the affirmative. "This is the *pons asinorum* (says a philosopher, at that time a friend of his), take the negative side of the question, and I'll promise you the greatest success."

His discourse against the sciences, accordingly, having been found to be the best written, and replete with the deepest reasoning, was publicly crowned with the approbation of that learned body. Never was a paradox supported with more eloquence: it was not however a new one; but he enriched it with all the advantages which either knowledge or genius could confer on it. Immediately after its appearance, he met with several opponents of his tenets, which he defended; and from one dispute to another, he found himself involved in a formidable train of correspondence, without having ever almost dreamed of such opposition. From that period he decreased in happiness as he increased in celebrity. His "Discourse on the Causes of Inequality among Mankind, and on the Origin of Social Compacts," a work full of almost unintelligible maxims and wild ideas, was written with a view to prove that mankind are equal; that they were born to live apart from each other; and that they have perverted the order of nature in forming societies. He bestows the highest praise on the state of nature, and deprecates the idea of every social compact. This discourse, and especially the dedication of it to the republic of Geneva, are the *chef-d'œuvres* of that kind of eloquence of which the ancients alone had given us any idea. By presenting this performance to the magistrates, he was received again into his native country, and reinstated in all the privileges and rights of a citizen, after having with much difficulty prevailed on himself to abjure the Catholic religion. He soon, however, returned to France, and lived for some time in Paris. He afterwards gave himself up to retirement, to escape the shafts of criticism, and follow after the regimen which the strangury, with which he was tormented, demanded of him. This is an important epoch in the history of his life, as it is owing to this circumstance, perhaps, that we have the most elegant works that have come from his pen. His "Letter to M. d'Alembert" on the design of erecting a theatre at Geneva, written in his retirement, and published in 1757, contains, along with some paradoxes, some very important and well handled truths. This letter first drew down upon him the envy of Voltaire, and was the cause of those indignities with which that author never ceased to load him. What is singular in him, is, that although so great an enemy to theatrical representations himself, he caused a comedy to be printed, and in 1752 gave to the theatre a pastoral (The Village Conjuror), of which he composed both the poetry and music, both of them abounding with sentiment and elegance, and full of innocent and rural simplicity. What renders the Village Conjuror highly delightful to persons of taste, is that perfect harmony of words and music which everywhere pervades it; that proper connection among the parties who compose it; and its being perfectly correct from beginning to end. The musician hath spoken, hath thought, and felt like a poet. Every thing in it is agreeable, interesting, and far superior to those common affected and insipid productions of our modern petit-dramas His Dictionary of Music affords several excellent articles; some of them, however, are very inaccurate. "This work (says M. la Borde), in his Essay on Music, has need to be written over again, to save much trouble to those who wish to study it, and prevent them from falling into errors, which it is difficult to avoid, from the engaging manner in which Rousseau drags along his readers." The passages in it which have any reference to literature may be easily distinguished, as they are treated with the agreeableness of a man of wit and the exactness of a man of taste. Rousseau, soon after the rapid success of his Village Conjuror, published a Letter *on* French Music, or rather *against* French Music, written with as much freedom as liveliness The exasperated partizans of French comedy treated him with as much fury as if he had conspired against the state. A crowd of insignificant enthusiasts spent their strength and outcries against him. He was insulted, menaced, and lampooned. Harmonic fanaticism went even to hang him up in effigy.

That interesting and tender style, which is so conspicuous throughout the Village Conjuror, animates several letters in the New Heloisa, in six parts, published 1761 in 12mo. This epistolary romance, of which the plot is ill-managed, and the arrangement bad, like all other works of genius, has its beauties as well as its faults. More truth in his characters and more precision in his details were to have been wished. The characters, as well as their style, have too much sameness, and their language is too affected and exaggerated. Some of the letters are indeed admirable, from the force and warmth of expression, from an effervescence of sentiments, from the irregularity of ideas which always characterise a passion carried to its height. But why is so affecting a letter so often accompanied with an unimportant digression, an insipid criticism, or a self-contradicting paradox? Why, after having shone in all the energy of sentiment, does he on a sudden turn unaffecting? It is because none of the personages are truly interesting.

That

That of St Preux is weak, and often forced. Julia is an assemblage of tenderness and pity, of elevation of soul and of coquetry, of natural parts and pedantry. Wolmar is a violent man, and almost beyond the limits of nature. In fine, when he wishes to change his style, and adopt that of the speaker, it may easily be observed that he does not long support it, and every attempt embarrasses the author and cools the reader. In the Heloisa, Rousseau's unlucky talent of rendering every thing problematical, appears very conspicuous; as in his arguments in favour of and against duelling, which afford an apology for suicide, and a just condemnation of it: in his facility in palliating the crime of adultery, and his very strong reasons to make it abhorred: on the one hand, in declamations against social happiness; on the other, in transports in favour of humanity; here, in violent rhapsodies against philosophers; there, by a rage for adopting their opinions: the existence of God attacked by sophistry, and Atheists confuted by the most irrefragable arguments; the Christian religion combated by the most specious objections, and celebrated with the most sublime eulogies.

His Emilius afterwards made more noise than the new Heloisa. This moral romance, which was published in 1762, in four vols. 12mo, treats chiefly of education. Rousseau wished to follow nature in every thing; and though his system in several places differs from received ideas, it deserves in many respects to be put in practice, and with some necessary modifications it has been so. His precepts are expressed with the force and dignity of a mind full of the leading truths of morality. If he has not always been virtuous, no body at least has felt it more, or made it appear to more advantage. Every thing which he says against luxury shows the vices and conceited opinions of his age, and is worthy at once of Plato or of Tacitus. His style is peculiar to himself. He sometimes, however, appears, by a kind of affected rudeness and asperity, to ape at the mode of Montaigne, of whom he is a great admirer, and whose sentiments and expressions he often clothes in a new dress. What is most to be lamented is, that in wishing to educate a young man as a Christian, he has filled his third volume with objections against Christianity. He has, it must be confessed, given a very sublime eulogium on the gospel, and an affecting portrait of its divine Author; but the miracles and the prophecies, which serve to establish his mission, he attacks without the least reserve. Admitting only natural religion, he weighs every thing in the balance of reason; and this reason being false, leads him into dilemmas very unfavourable to his own repose and happiness.

He dwelt from 1754 in a small house in the country near Montmorenci; a retreat which he owed to the generosity of a farmer-general. The cause of his love for this retirement was, according to himself, "that invincible spirit of liberty which nothing could conquer, and in competition with which honours, fortune, and reputation, could not stand. It is true, this desire of liberty has occasioned less pride than laziness; but this indolence is inconceivable. Every thing startles it; the most inconsiderable reciprocalities of social life are to it insupportable. A word to speak, a letter to write, a visit to pay, things necessary to be done, are to me punishments. Hear my reasons. Although the ordinary intercourse between mankind be odious to me, intimate friendship appears to me very dear; because there are no mere ceremonies due to it; it agrees with the heart, and all is accomplished Here, again, why I have always shunned kindnesses so much; because every act of kindness requires a grateful mind, and I find my heart ungrateful, from this alone, that gratitude is a duty. Lastly, that kind of felicity which is necessary for me, is not so much to do that which I wish, as not to do what I wish not to do." Rousseau enjoyed this felicity which he so much wished in his retirement. Without entirely adopting that too rigorous mode of life pursued by the ancient Cynics, he deprived himself of every thing that could in any measure add fuel to this wished for luxury, which is ever the companion of riches, and which inverts even custom itself. He might have been happy in this retreat, if he could have forgot this public, which he affected to despise; but his desire after a great name got the better of his self-love, and it was this thirst after reputation which made him introduce so many dangerous paragraphs in his Emilia.

The French parliament condemned this book in 1762, and entered into a criminal prosecution against the author, which forced him to make a precipitate retreat. He directed his steps towards his native country, which shut its gates upon him. Proscribed in the place where he first drew breath, he sought an asylum in Switzerland, and found one in the principality of Neufchatel. His first care was to defend his Emilia against the mandate of the archbishop of Paris, by whom it had been anathematised. In 1763 he published a letter, in which he re-exhibits all his errors, set off with the most animated display of eloquence, and in the most insidious manner. In this letter he describes himself as "more vehement than celebrated in his researches, but sincere on the whole, even against himself; simple and good, but sensible and weak; often doing evil, and always loving good; united by friendship, never by circumstances, and keeping more to his opinions than to his interests; requiring nothing of men, and not wishing to be under any obligation to them; yielding no more to their prejudices than to their will, and preserving his own as free as his reason; disputing about religion without licentiousness; loving neither impiety nor fanaticism, but disliking precise people more than bold spirits," &c. From this specimen, the limitations he would appoint to this portrait may easily be discovered.

The letters of La Montaigne appeared soon after; but this work, far less eloquent, and full of envious discussions on the magistrates and clergy of Geneva, irritated the Protestant ministers without effecting a reconciliation with the clergy of the Romish church. Rousseau had solemnly abjured the latter religion in 1753, and, what is somewhat strange, had then resolved to live in France, a Catholic country. The Protestant clergy were not fully reconciled by this change; and the protection of the king of Prussia, to whom the principality of Neufchatel belonged, was not sufficient to rescue him from that obloquy which the minister of Moutiers-Travers, the village to which he had retired, had excited against him. He preached against Rousseau, and his sermons produced an uproar among the people. On the night between the 6th and 7th September 1765, some fanatics, drove on by wine and the declamations of their minister, threw some stones at the windows of the

the Genevan philosopher, who fearing new insults, in vain sought an asylum in the canton of Berne. As this canton was connected with the republic of Geneva, they did not think proper to allow him to remain in their city, being proscribed by that republic. Neither his broken state of health, nor the approach of winter, could soften the hearts of those obdurate Spartans. In vain, to prevent them from the fear they had of the spreading of his opinions, did he beseech them to shut him up in prison till the spring; for even this favour was denied him. Obliged to set out on a journey, in the beginning of a very inclement season, he reached Strasbourg in a very destitute situation. He received from Marshal de Contades, who then commanded in that place, every accommodation which could be expected from generosity, humanity, and compassion. He waited there till the weather was milder, when he went to Paris, where Mr Hume then was, who determined on taking him with him to England. After having made some stay in Paris, Rousseau actually set out for London in 1766. Hume, much affected with his situation and his misfortunes, procured for him a very agreeable settlement in the country. Our Genevan philosopher was not, however, long satisfied with this new place. He did not make such an impression on the minds of the English as he had done on the French. His free disposition, his obdurate and melancholy temper, were deemed no singularity in England. He was there looked upon as an ordinary man, and the periodical prints were filled with satires against him. In particular, they published a forged letter from the king of Prussia, holding up to ridicule the principles and conduct of this new Diogenes. Rousseau imagined there was a plot between Hume and some philosophers in France to destroy his glory and repose. He sent a letter to him, filled with the most abusive expressions, and reproaching him for his conduct towards him. From this time he looked upon Hume as a wicked and perfidious person, who had brought him to England with no other view than to expose him to public ridicule; which foolish and chimerical idea was nourished by self-love and a restless disposition. He imagined that the English philosopher, amidst all his kindnesses, had something disagreeable in the manner of expressing them. The bad health of Rousseau, a strong and melancholy imagination, a too nice sensibility, a jealous disposition, joined with philosophic vanity, cherished by the false informations of his governess, who possessed an uncommon power over him; all these taken together, might tend to prepossess him with unfavourable sentiments of some innocent freedoms his benefactor might have taken with him, and might render him ungrateful, which he thought himself incapable of becoming. Meanwhile, these false conjectures and probabilities ought never to have had the weight with an honest mind to withdraw itself from its friend and benefactor. Proofs are always necessary in cases of this kind; and that which Rousseau had was by no means a certain demonstration. The Genevan philosopher, however, certainly returned to France. In passing through Amiens, he met with M. Gresset, who interrogated him about his misfortunes and the controversies he had been engaged in. He only answered, "You have got the art of making a parrot speak; but you are not yet possessed of the secret of making a bear speak." In the mean time, the magistrates of this city wished to confer on him some mark of their esteem, which he absolutely refused. His disordered imagination viewed these flattering civilities as nothing else than insults, such as were lavished on Sancho in the island of Barataria. He thought one part of the people looked upon him as like Lazarille of Tormes, who, being fixed to the bottom of a tub, with only his head out of the water, was carried from one town to another to amuse the vulgar. But these wrong and whimsical ideas did not prevent him from aspiring after a residence in Paris, where, without doubt, he was more looked on as a spectacle than in any other place whatever. On the 1st July 1770, Rousseau appeared, for the first time, at the regency coffee-house, dressed in ordinary clothing, having for some time previous to this wore an Armenian habit. He was loaded with praises by the surrounding multitude. "It is somewhat singular (says M. Sennebier) to see a man so haughty as he returning to the very place from whence he had been banished so often. Nor is it one of the smallest inconsistencies of this extraordinary character, that he preferred a retreat in that place of which he had spoken so much ill." It is as singular that a person under sentence of imprisonment should wish to live in so public a manner in the very place where his sentence was in force against him. His friends procured for him, however, liberty of staying, on condition that he should neither write on religion nor politics: he kept his word; for he wrote none at all. He was contented with living in a calm philosophical manner, giving himself to the society of a few tried friends, shunning the company of the great, appearing to have given up all his whimsies, and affecting neither the character of a philosopher nor a *bel esprit*. He died of an apoplexy at Ermenonville, belonging to the marquis de Girardin, about ten leagues from Paris, July 2. 1178, aged 66 years. This nobleman has erected to his memory a very plain monument, in a grove of poplars, which constitutes part of his beautiful gardens. On the tomb are inscribed the following epitaphs:

Ici repose
L'Homme de la Nature
Et de la Verité!

Vitam impendere Vero *.
Hic jacent Ossa J. J. Rousseau.

* His motto.

The curious who go to see this tomb likewise see the cloak which the Genevan philosopher wore. Above the door is inscribed the following sentence, which might afford matter for a whole book: "He is truly free, who, to accomplish his pleasure, has no need of *the assistance of a second person*." Rousseau, during his stay in the environs of Lyons, married Mademoiselle le Vasseur, his governess, a woman who, without either beauty or talents, had gained over him a great ascendancy. She waited on him in health and in sickness: But as if she had been jealous of possessing him alone, she drove from his mind, by the most perfidious insinuations, all those who came to entertain him; and when Rousseau did not dismiss them, she prevented their return by invariably refusing them admittance. By these means she the more easily led her husband into inconsistencies of conduct, which the originality of his character as well as of his opinions so much contributed to assist. Nature had perhaps but given him the embryo

bryo of his character, and art had probably united to make it more singular. He did not incline to associate with any person; and as this method of thinking and living was uncommon, it procured him a name, and he displayed a kind of fantasticalness in his behaviour and his writings. Like Diogenes of old, he united simplicity of manners with all the pride of genius; and a large stock of indolence, with an extreme sensibility, served to render his character still more uncommon. "An indolent mind (says he), terrified at every application, a warm, bilious, and irritable temperament, sensible also in a high degree to every thing that can affect it, appear not possible to be united in the same person: and yet these two contrarieties compose the chief of mine. An active life has no charms for me. I would an hundred times rather consent to be idle than to do any thing against my will; and I have an hundred times thought that I would live not amiss in the Bastile, provided I had nothing to do but just continue there. In my younger days I made several attempts to get in there; but as they were only with the view of procuring a refuge and rest in my old age, and, like the exertions of an indolent person, only by fits and starts, they were never attended with the smallest success. When misfortunes came, they afforded me a pretext of giving myself up to my ruling passion." He often exaggerated his misfortunes to himself as well as to others. He endeavoured particularly to render interesting by his description his misfortunes and his poverty, although the former were far less than he imagined, and notwithstanding he had certain resources against the latter. In other respects he was charitable, generous, sober, just, contenting himself with what was purely necessary, and refusing the means which might have procured him wealth and offices. He cannot, like many other sophists, be accused of having often repeated with a studied emphasis the word *Virtue*, without inspiring the sentiment. When he is speaking of the duties of mankind, of the principles necessary to our happiness, of the duty we owe to ourselves and to our equals, it is with a copiousness, a charm, and an impetuosity, that could only proceed from the heart. He said one day to M. de Buffon, "You have asserted and proved before J. J. Rousseau, that mothers ought to suckle their children." "Yes (says this great naturalist), we have all said so; but M. Rousseau alone forbids it, and causes himself to be obeyed." Another academician said, "that the virtues of Voltaire were without heart, and those of Rousseau without head." He was acquainted at an early age with the works of the Greek and Roman authors; and the republican virtues there held forth to view, the rigorous austerity of Cato, Brutus, &c. carried him beyond the limits of a simple estimation of them. Influenced by his imagination, he admired every thing in the ancients, and saw nothing in his contemporaries but enervated minds and degenerated bodies.

His ideas about politics were almost as eccentric as his paradoxes about religion. Some reckon his *Social Compact*, which Voltaire calls the *Unsocial Compact*, the greatest effort his genius produced. Others find it full of contradictions, errors, and cynical passages, obscure, ill arranged, and by no means worthy of his shining pen. There are several other small pieces wrote by him, to be found in a collection of his works published in 25 vols. 8vo and 12mo, to which there is appended a very insignificant supplement in 6 vols.

The most useful and most important truths in this collection are picked out in his Thoughts; in which the confident sophist and the impious author disappear, and nothing is offered to the reader but the eloquent writer and the contemplative moralist. There were found in his port-folio his Confessions, in twelve books; the first six of which were published. "In the preface to these memoirs, which abound with characters well drawn, and written with warmth, with energy, and sometimes with elegance, he declares (says M. Palissot), like a peevish misanthrope, who boldly introduces himself on the ruins of the world, to declare to mankind whom he supposes assembled upon these ruins, that in that innumerable multitude, none could dare to say, *I am better than that man*. This affectation of seeing himself alone in the universe, and of continually directing every thing to himself, may appear to some morose minds a fanaticism of pride, of which we have no examples, at least since the time of Cardan." But this is not the only blame which may be attached to the author of the Confessions. With uneasiness we see him, under the pretext of sincerity, dishonouring the character of his benefactress Lady Warren. There are innuendos no less offensive against obscure and celebrated characters, which ought entirely or partly to have been suppressed. A lady of wit said, that Rousseau would have been held in higher estimation for virtue, "had he died without his confession." The same opinion is entertained by M. Sennebier, author of the Literary History of Geneva: "His confessions (says he) appear to me to be a very dangerous book, and paint Rousseau in such colours as we would never have ventured to apply to him. The excellent analyses which we meet with of some sentiments, and the delicate anatomy which he makes of some actions, are not sufficient to counterbalance the detestable matter which is found in them, and the unceasing obloquies everywhere to be met with." It is certain, that if Rousseau has given a faithful delineation of some persons, he has viewed others through a cloud, which formed in his mind perpetual suspicions. He imagined he thought justly and spoke truly; but the simplest thing in nature, says M. Servant, if distilled through his violent and suspicious head, might become poison. Rousseau, in what he says of himself, makes such acknowledgements as certainly prove that there were better men than he, at least if we may judge him from the first six books of his memoirs, where nothing appears but his vices. They ought not perhaps to be separated from the six last books, where he speaks of the virtues which make reparation for them; or rather the work ought not to have been published at all, if it be true (which there can be little doubt of) that in his confessions he injured the public manners, both by the baseness of the vices he disclosed, and by the manner in which he united them with the virtues. The other pieces which we find in this new edition of his works are, 1. The Reveries of a Solitary Wanderer, being a journal of the latter part of his life. In this he confesses, that he liked better to send his children into hospitals destined for orphans, than to take upon himself the charge of their maintenance and education; and endeavours to palliate this error which nothing can exculpate. 2. Considerations upon the Government

vernment of Poland. 3. The Adventures of Lord Edward, a novel, being a kind of supplement to the new Heloisa. 4. Various Memoirs and Fugitive Pieces, with a great number of letters, some of which are very long, and written with too much study, but containing some eloquent passages and some deep thought. 5. Emilia and Sophia. 6. The Levite of Ephraim, a poem in prose, in 4 cantos; written in a truly ancient style of simplicity. 7. Letters to Sara. 8. An Opera and a Comedy. 9. Translations of the first book of Tacitus's History, of the Episode of Olinda and Sophronia, taken from Tasso, &c. &c. Like all the other writings of Rousseau, we find in these posthumous pieces many admirable and some useful things; but they also abound with contradictions, paradoxes, and ideas very unfavourable to religion. In his letters especially we see a man chagrined at misfortunes, which he never attributes to himself, suspicious of every body about him, calling and believing himself a lamb in the midst of wolves; in one word, as like Pascal in the strength of his genius, as in his fancy of always seeing a precipice about him. This is the reflection of M. Servant, who knew him, assisted him, and caressed him during his retreat at Grenoble in 1768. This magistrate having been very attentive in observing his character, ought the rather to be believed, as he inspected it without either malice, envy, or resentment, and only from the concern he had for this philosopher, whom he loved and admired.

ROUT, in *Law*, is applied to an assembly of persons going forcibly to commit some unlawful act, whether they execute it or not. See RIOT.

ROUTE, a public road, highway, or course, especially that which military orces take. This word is also used for the defeat and flight of an army.

ROWE, NICHOLAS, descended of an ancient family in Devonshire was born in 1673. He acquired a complete taste of the classic authors under the famous Dr Busby in Westminster school; but poetry was his early and darling study. His father, who was a lawyer, and designed him for his own profession, entered him a student in the Middle Temple. He made remarkable advances in the study of the law; but the love of the belles lettres, and of poetry in particular, stopt him in his career. His first tragedy, the Ambitious Stepmother, meeting with universal applause, he laid aside all thoughts of rising by the law. He afterward composed several tragedies; but that which he valued himself most upon, was his Tamerlane. The others are, the Fair Penitent, Ulysses, the Royal Convert, Jane Shore, and Lady Jane Grey. He also wrote a poem called the Biter, and several poems upon different subjects, which have been published under the title of Miscellaneous Works in one volume, as his dramatic works have been in two. Rowe is chiefly to be considered (Dr Johnson observes) in the light of a tragic writer and a translator. In his attempt at comedy, he failed so ignominiously, that his Biter is not inserted in his works; and his occasional poems and short compositions are rarely worthy of either praise or censure, for they seem the casual sports of a mind seeking rather to amuse its leisure than to exercise its powers. In the construction of his dramas there is not much art; he is not a nice observer of the unities. He extends time, and varies place, as his convenience requires. To vary the place is not (in the opinion of the learned critic from whom these observations are borrowed) any violation of nature, if the change be made between the acts; for it is no less easy for the spectator to suppose himself at Athens in the second act, than at Thebes in the first; but to change the scene, as is done by Rowe in the middle of an act, is to add more acts to the play, since an act is so much of the business as is transacted without interruption. Rowe, by this licence, easily extricates himself from difficulties; as in Lady Jane Gray, when we have been terrified with all the dreadful pomp of public execution, and are wondering how the heroine or the poet will proceed, no sooner has Jane pronounced some prophetic rhimes, than—pass and be gone—the scene closes, and Pembroke and Gardiner are turned out upon the stage. I know not (says Dr Johnson) that there can be found in his plays any deep search into nature, any accurate discriminations of kindred qualities, or nice display of passion in its progress; all is general and undefined. Nor does he much interest or affect the auditor, except in Jane Shore, who is always seen and heard with pity. Alicia is a character of empty noise, with no resemblance to real sorrow or to natural madness. Whence then has Rowe his reputation? From the reasonableness and propriety of some of his scenes, from the elegance of his diction, and the suavity of his verse. He seldom moves either pity or terror, but he often elevates the sentiment; he seldom pierces the breast, but he always delights the ear, and often improves the understanding. Being a great admirer of Shakespeare, he gave the public an edition of his plays; to which he prefixed an account of that great man's life. But the most considerable of Mr Rowe's performances was a translation of Lucan's *Pharsalia*, which he just lived to finish, but not to publish; for it did not appear in print till 1728, ten years after his death.

Meanwhile, the love of poetry and books did not make him unfit for business; for nobody applied closer to it when occasion required. The duke of Queensberry, when secretary of state, made him secretary for public affairs. After the duke's death, all avenues were stopped to his preferment; and during the rest of Queen Anne's reign he passed his time with the Muses and his books. A story, indeed, is told of him, which shows that he had some acquaintance with her ministers. It is said, that he went one day to pay his court to the lord treasurer Oxford, who asked him, "If he understood Spanish well?" He answered, 'No:" but thinking that his Lordship might intend to send him into Spain on some honourable commission, he presently added, "that he did not doubt but he could shortly be able both understand and to speak it" The earl approving what he said, Rowe took his leave; and, retiring a few weeks to learn the language, waited again on the Earl to acquaint him with it. His Lordship asked him, "If he was sure he understood it thoroughly?" and Rowe affirming that he did, "How happy are you, Mr Rowe," said the Earl, "that you can have the pleasure of reading and understanding the history of Don Quixote in the original?" On the accession of George I. he was made poet laureat, and one of the land surveyors of the customs in the port of London. The prince of Wales conferred on him the clerkship of his council; and the Lord Chancellor Parker made him his secretary for the presentations. He did not enjoy these promotions long; for he died Dec. 6. 1718, in his 45th year.

Mr

Mr Rowe was twice married, had a son by his first wife, and a daughter by his second. He was a handsome, genteel man; and his mind was as amiable as his person. He lived beloved; and at his death had the honour to be lamented by Mr Pope, in an epitaph which is printed in Pope's works, although it was not affixed on Mr Rowe's monument in Westminster-abbey, where he was interred in the poet's corner, opposite to Chaucer.

Rowe, *Elizabeth*, an English lady, eminent for her excellent writings both in prose and verse, born at Ilchester in Somersetshire in 1647, was the daughter of worthy parents, Mr Walter Singer and Mrs Elisabeth Portnel. She received the first serious impressions of religion as soon as she was capable of it. There being a great affinity between painting and poetry, this lady, who had a vein for the one, naturally had a taste for the other. She was also very fond of music; chiefly of the grave and solemn kind, as best suited to the grandeur of her sentiments and the sublimity of her devotion. But poetry was her favourite employment, her distinguishing excellence. So prevalent was her genius this way, that her prose is all poetical. In 1696, a collection of her poems was published at the desire of two friends. Her paraphrase on the xxxviiith chapter of Job was written at the request of Bishop Ken. She had no other tutor for the French and Italian languages than the honourable Mr Thynne, who willingly took the task upon himself. Her shining merit, with the charms of her person and conversation, had procured her a great many admirers. Among others, it is said, the famous Mr Prior made his addresses to her. But Mr Thomas Rowe was to be the happy man. This gentleman was honourably descended; and his superior genius, and insatiable thirst after knowledge, were conspicuous in his earliest years. He had formed a design to compile the lives of all the illustrious persons in antiquity omitted by Plutarch; which, indeed, he partly executed. Eight lives were published since his decease. They were translated into French by the abbé Bellenger in 1734. He spoke with ease and fluency; had a frank and benevolent temper, an inexhaustible fund of wit, and a communicative disposition. Such was the man who, charmed with the person, character, and writings, of our authoress, married her in 1710, and made it his study to repay the felicity with which she crowned his life. Too intense an application to study, beyond what the delicacy of his frame would bear, broke his health, and threw him into a consumption, which put a period to his valuable life in May 1715, when he was but just past the 28th year of his age. Mrs Rowe wrote a beautiful elegy on his death; and continued to the last moments of her life to express the highest veneration and affection for his memory. As soon after his decease as her affairs would permit, she indulged her inclination for solitude, by retiring to Frome, in Somersetshire, in the neighbourhood of which place the greatest part of her estate lay. In this recess it was that she composed the most celebrated of her works, Friendship in Death, and the Letters Moral and Entertaining. In 1736, she published the History of Joseph; a poem which she had written in her younger years. She did not long survive this publication; for she died of an apoplexy, as was supposed, Feb. 20, 1736-7. In her cabinet were found letters to several of her friends, which she had ordered to be delivered immediately after her decease. The Rev. Dr Isaac Watts, agreeably to her request, revised and published her devotions in 1737, under the title of Devout Exercises of the Heart in Meditation and Soliloquy, Praise and Prayer; and, in 1739, her Miscellaneous Works, in prose and verse, were published in 2 vols. 8vo, with an account of her life and writings prefixed.

As to her person, she was not a regular beauty, yet possessed a large share of the charms of her sex. She was of a moderate stature, her hair of a fine colour, her eyes of a darkish gray inclining to blue, and full of fire. Her complexion was very fair, and a natural blush glowed in her cheeks. She spoke gracefully; her voice was exceedingly sweet and harmonious; and she had a softness in her aspect which inspired love, yet not without some mixture of that awe and veneration which distinguished sense and virtue, apparent in the countenance, are wont to create.

ROWEL, among farriers, a kind of issue answering to what in surgery is called a *seton*. See Farriery, sect. v.

ROWLEY, a monk who is said to have flourished at Bristol in the 15th century, and to have been an author voluminous and elegant. Of the poems attributed to him, and published some time ago, various opinions have been entertained, which we have noticed elsewhere. They seem now to be almost forgotten. See Chatterton.

Rowley, *William*, who stands in the third class of dramatic writers, lived in the reign of King Charles I. and received his education at the university of Cambridge; but whether he took any degree there, is not evident; there being but few particulars preserved in regard to him more than his close intimacy and connection with all the principal wits and poetical geniuses of that age, by whom he was well beloved, and with some of whom he joined in their writings. Wood styles him "the ornament, for wit and ingenuity, of Pembroke-hall in Cambridge." In a word, he was a very great benefactor to the English stage, having, exclusive of his aid lent to Middleton, Day, Heywood, Webster, &c. left us five plays of his own composing, and one in which even the immortal Shakespeare afforded him some assistance.

ROWNING, John, an English mathematician and philosopher of considerable ingenuity, was fellow of Magdalen college, Cambridge, and afterwards rector of Anderby in Lincolnshire, in the gift of that society. He constantly attended the meetings of the Spalding society, and was a man of an extraordinary philosophical habit and turn of mind, while at the same time his dispositions were social and cheerful. His genius was peculiarly fitted for mechanical contrivances or inventions. He published a compendious system of Natural Philosophy at Cambridge, in the year 1738, in two vols. 8vo.; a work of much ingenuity, which has gone through several editions. He likewise inserted two pieces in the Philosophical Transactions, viz. a description of a barometer, wherein the scale of variation may be increased at pleasure; vol. xxxviii. p. 39.; and directions for making a machine for finding the roots of equations universally, together with the manner in which it is to be used; vol. lx. p. 240.

He died at his lodgings in Carey street, near Lincoln's

Rowning, Roxburghshire.

coln's-inn Fields, in the end of November 1771, at 72 years of age. Though a man both ingenious and pleasant, his external appearance was rather forbidding, as he was tall, stooped in the shoulders, and his countenance was down-looking and sallow.

ROXBURGHSHIRE, a county of Scotland, which is also known by the name of TEVIOTDALE, measures about 40 miles in length from north to south, and in breadth about 36 miles in a direction between east and west; containing 472,320 square acres. The centre of the county is computed to lie in 55°. 25′. N. Lat. and in 2°. 37′. W. Long. from the meridian of London. The counties of Northumberland and Cumberland form its boundary on the south; it is also bounded by the former county on the east, by Berwickshire on the north, and on the west by the counties of Dumfries, Selkirk, and Edinburgh.

The external appearance of this county is regarded as upon the whole extremely beautiful, exhibiting an alternate succession of hills and dales, through which flow a considerable number of small rivers. The greater part of the hills are covered with a fine sward, producing valuable grasses for the feeding of sheep; and the county is divided into four different districts, the most mountainous part of it being denominated the district of Hawick; the second is that of Jedburgh; the third is the district of Kelso, and the fourth is known by the name of the district of Melrose, being composed of that part of the county which is situated to the northward of the rest.

The most remarkable hills in the county of Roxburgh are Minto, 858 feet above the level of the sea; Dunion 1021; Eldon 1330; Ruberslaw 1419; Carterfell 1602, Wisp 1803. These constitute a part of that extensive range generally known by the appellation of *Cheviot*, which is distant not above a mile from the most easterly point of Roxburgh. Whinstone is their chief constituent, in which veins of Scotch pebbles are usually interspersed. They are often covered with whinstone reduced to the state of powder by the action of the weather. The hills towards their summits are in general of a conical form, a circumstance which some think is favourable to the volcanic system;—that the globe at some remote period has suffered the most dreadful convulsions from the irresistible action of fire.

The county of Roxburgh is intersected by a multitude of streams, the most important of which are the Teviot, Jed, Tweed, Rule, Kale, Oxnam, Gala, Slitrig, Ale, Caster, Borthwick, Ednam, Bowmont, Allan, Leader, Ettrick, Hermitage, Liddel. The term *river* is rarely applied to any of these streams, except to the three first, viz. the Teviot, the Jed, and the Tweed, none of which are navigable but for small ferry boats. Some rivers in England, such as the Tyne, the Cocket, &c. have their origin in the more elevated parts of the county of Roxburgh.

In an agricultural point of view, Roxburghshire may be divided into land under tillage and under pasture, although a considerable portion of the latter may be reduced to arable land. The soils under tillage may be divided into light and clayey, the former of which is usually denominated *green*, and the latter *white soil*, because it is best adapted to the rearing of oats, wheat, and other white grains. What is called *till* in Roxburghshire, generally consists of a hard clay intermixed with stones, by which it resembles coarse gravel. Most of the different species of till may be changed into a fertile soil in process of time, by being exposed to the action of the atmosphere, and mixed with lime and manure. Sweet, sour, and healthy, are the terms by which lands under pasture are usually distinguished, and these are conferred from a consideration of the nature of the soil, its grasses, and such other circumstances as indicate them to be favourable or unfavourable for the rearing of sheep. Much of these lands was, at a remote period, under wood and heath, the existence of the former being pointed out by the roots of trees still remaining in the ground. The soil in general is sharp and dry upon the hills; but some of the high moors and the grounds in the vicinity of rivers are wet and marshy.

There are different tracts of land in this county which still continue in a state of nature, a portion of which kind, measuring about four miles long and two broad, runs through part of the parishes of Ancrum and Roxburgh chiefly of a light gravelly nature, covered with heath, bent and other coarse grasses. The large district of Liddesdale is wholly under sheep-pasturage, with the exception of a few stripes on the banks of the Liddel and Hermitage. Indeed a cold wet soil and exposed situation, and unfriendly climate, hold out few incentives to improvements in agriculture. In ancient times this must have been very different from what it is at present. The marks of the plough can still be traced on the summits of lofty mountains, where the production of crops at this day is wholly impracticable. The counties on the borders were not, at a remote period, possessed by individuals in large detached portions, but the people of a whole neighbourhood had their alternate ridges, in which case they became interested in defending the property of each other against invaders and plunderers. The wars of the border, however, were happily terminated by the union of England and Scotland under one sovereign, in consequence of which the holding of property in what was denominated *runrigg*, no longer possessed its ancient advantages, but was rather a disadvantage, as it created constant quarrels and disputes among farmers, and greatly retarded the improvement of the soil. Each individual, therefore, became anxious to have his lands detached from those of his neighbours, an advantageous change which was very soon and very generally adopted.

A Mr Dawson, the son of a farmer in Roxburghshire, having resided four years in the west riding of Yorkshire, and a year in Essex, thereby made himself well acquainted with the most approved methods of husbandry practised in England, and returned to his native country in the full assurance of being able to introduce into the agriculture of Scotland the most essential improvements. On his arrival in Roxburghshire in the year 1753, he immediately introduced the turnip husbandry, which he sowed in drills, and was certainly the first Scots farmer who introduced the cultivation of turnip into the open field. His neighbours being wholly ignorant of the agricultural knowledge which this young gentleman had acquired in England, began to predict his ruin as wholly inevitable; but he was not to be intimidated by their prophetic sentiments, and he went on resolutely in bringing his lands into the very best condition, which he fully effected by means of the turnip husbandry,

husbandry, by the sowing of artificial grasses, a practice then unknown in Scotland, and by the free and extensive use of lime. By such a procedure his neighbours saw him becoming rapidly opulent, and having followed his example with the most flattering success, they were constrained to alter their sentiments respecting his conduct as a farmer, and to hail him the father of the agriculture of the south of Scotland.

The rotation of crops now followed in this county has nothing in it of a peculiar nature, the arrangement on a dry soil being generally oats, turnips, barley with grasses, hay or pasture for one year, then barley as before. Where the soil is good and properly prepared, it is not uncommon with farmers to adopt the following rotation, viz. oats, turnips, oats, turnips, wheat or barley with grasses, and hay or pasture for one year. A part of Roxburghshire has been long celebrated for a species of oats which produce early crops, and which are known by the appellation of Blainsly oats, because they have been produced at Blainsly from time immemorial, which is a district in the parish of Melrose, and northern extremity of the county. These are often five shillings a boll dearer than common oats, and in no situation whatever are they known to degenerate. In some rich soils the produce is 16 or 18 for 1, and the lowest average produce is at least six for one. The general practice of feeding cattle with turnip has diminished the culture of pease and beans in this county, and there are so few potatoes reared that they cannot be regarded as forming a part of the farmer's crop. Extensive crops of hay are not in general cultivated in this county, there being but few cities in which an advantageous market could be found; and the use of it is in a great measure supplanted by that of turnip. Little more flax is reared than what is necessary for domestic purposes.

There is a circumstance worthy of observation, that the rearing of tobacco was, at one period, attempted in this county with remarkable success. It was introduced by a Mr Thomas Man, who had been for some time in America. Soon after the first experiments were made, a single acre of land produced a crop worth L.70 sterling; and the crop of 13 acres was sold on the ground for L.320; but in consequence of an act of parliament prohibiting the culture of it, the purchaser could not implement his bargain, and the farmer was obliged to sell it to government at the rate of fourpence a pound, in consequence of which it brought him no more than L.104 instead of L.320.

Great quantities of cattle are fed in this county, and about 260,000 sheep of the Cheviot breed in general, which are found to thrive remarkably in every part of the county. The horses are either of the English breed, or from Lanarkshire, which latter are deemed preferable for steady work in the plough. Although swine are not kept by the farmers as a part of their stock, yet great numbers of them are reared by tradesmen, cottagers, hinds and others, the small breed being chiefly preferred, not exceeding eight or nine stones English each. Roxburghshire is also famous for the rearing of poultry, and immense quantities of eggs are sent from it to Berwick, to be shipped for the London market. Crows are here so numerous, that they frequently darken the air in their flight, and are extremely destructive to every species of grain. A great part of the county is uninclosed, and the fences made use of are the hedge and ditch, although in some places upright stone dykes have the decided preference, where stones can be readily procured.

The orchards of Roxburgh county have been long celebrated for different kinds of fruit, and there are here two extensive nurseries for the rearing of trees. These last are at Hassendean burn in the parish of Minto, and at Hawick. The whole county, however, like that of Berwick, is extremely defective in mineral productions, and coal has nowhere been found. Limestone is no doubt met with in different places of it, but the want of fuel requisite for its calcination, induces farmers to bring it from Dalkeith or Edinburgh in their corn carts, which might otherwise return empty.

In the vicinity of Jedburgh there are two springs of chalybeate water, with indications of more in different parts of the parish, which have not yet been subjected to an examination or analysis, although the waters of *Tudhope well* have been regarded as antiscorbutic, and of use also in rheumatic disorders.

In this county there are many remains of antiquity, such as ancient strong buildings, and vestiges of camps. Different remains of encampments and fortifications are to be met with in the parish of Roberton, which in all probability have been the work of the Romans. Hermitage castle is situated upon the bank of the river of the same name, and is nearly 100 feet square, defended by a strong rampart and ditch. The inner part of it is a heap of ruins, but the walls are almost entire. This is probably the very castle mentioned by Smollet, which was built in Liddesdale by Alexander II. and which gave such offence to Henry III. of England that he made war on Alexander in the year 1240. There are several caves or recesses on the banks of the Ale water, not fewer than fifteen of which, it is said, may be still pointed out, in some of which the vestiges of chimneys or fire-places are very discernible. Although at first used by plunderers as places of safe retreat, they were no doubt afterwards employed by the poorer classes of the community as their ordinary habitations. Perhaps the abbey of Melrose is the most distinguished monument of antiquity to be met with in this county. See the article MELROSE.

Roxburghshire has given birth to some of the most eminent characters who have adorned the republic of letters, among whom we find Dr John Armstrong, a distinguished physician and poet; James Thomson, the far-famed author of the Seasons; the poet Gawin Douglas, at one time rector of Hawick, afterwards bishop of Dunkeld; and the celebrated George Augustus Elliot, afterwards Lord Heathfield.

Notwithstanding the difficulty of procuring fuel in this county, several manufactures have been carried on with a considerable degree of spirit and determined perseverance, the chief of which are carpets, inkle, cloth and stockings, in the manufacture of which nearly 300 packs of wool (each 12 stones) have been annually consumed. About 4000 pairs of stockings have been made in the same time, and 10 tons of linen yarn consumed in the making of inkle.

The population of this county in 1801, amounted to 33,682, and in 1811 to 37,230. The following is the population according to the parishes, taken from the Statistical History of Scotland. See ROXBURGHSHIRE SUPPLEMENT.

	Parishes.		Population in 1755.	Population in 1790—1798.
	Ancrum	-	1066	1146
	Ashkirk	-	629	539
	Bedrule	-	297	259
	Bowden	-	672	860
5	Castleton	-	1507	1418
	Cavers	-	993	1300
	Crailing	-	387	672
	Ednam	-	387	600
	Eckford	-	1083	952
10	Hawick	-	2713	2928
	Hobkirk	-	530	700
	Hownam	-	632	365
	Jedburgh	-	5816	3288
	Kelso	-	2781	4324
15	Kirktown	-	330	342
	Lessuden	-	309	500
	Liliesleaf	-	521	630
	Linton	-	413	383
	Mackerston	-	165	255
20	Maxton	-	397	326
	Melrose	-	2322	2446
	Minto	-	395	513
	Morebattle	-	789	789
	Oxnam	-	760	690
25	Roberton	-	651	629
	Roxburgh	-	784	840
	Smailholm	-	551	421
	Southdean	-	669	714
	Sprouston	-	1089	1000
30	Wilton	-	936	1215
	Yetholm	-	699	976
			31,273	32,020
				31,273
			Increase	747

ROXENT-CAPE, or *Rock of Lisbon*, a mountain and remarkable promontory in Portugal, situated in the Atlantic ocean, at the north entrance of the Tagus, 22 miles north of Lisbon.

ROYAL, something belonging to a king: thus we say, royal family, royal assent, royal exchange, &c.

Royal Family. The first and most considerable branch of the king's royal family, regarded by the laws of England, is the queen.

1. The queen of England is either queen *regent*, queen *consort*, or queen *dowager*. The queen *regent*, *regnant*, or *sovereign*, is she who holds the crown in her own right; as the first (and perhaps the second) Queen Mary, Queen Elizabeth, and Queen Anne; and such a one has the same powers, prerogatives, right, dignities, and duties, as if she had been a king. This is expressly declared by statute 1 Mar. I. st. 3. c. i. But the queen *consort* is the wife of the reigning king; and she by virtue of her marriage is participant of divers prerogatives above other women.

And, first, she is a public person, exempt and distinct from the king; and not, like other married women, so closely connected as to have lost all legal or separate existence so long as the marriage continues. For the queen is of ability to purchase lands and to convey them, to make leases, to grant copyholds, and do other acts of ownership, without the concurrence of her lord; which no other married woman can do: a privilege as old as the Saxon era. She is also capable of taking a grant from the king, which no other wife is from her husband; and in this particular she agrees with the *augusta* or *piissima regina conjux divi imperatoris* of the Roman laws; who, according to Justinian, was equally capable of making a grant to, and receiving one from, the emperor. The queen of England hath separate courts and officers distinct from the king's, not only in matters of ceremony, but even of law; and her attorney and solicitor general are entitled to a place within the bar of his majesty's courts, together with the king's counsel. She may likewise sue and be sued alone, without joining her husband. She may also have a separate property in goods as well as lands, and has a right to dispose of them by will. In short, she is in all legal proceedings looked upon as a feme sole, and not as a feme covert; as a single, not as a married woman. For which the reason given by Sir Edward Coke is this: because the wisdom of the common law would not have the king (whose continual care and study is for the public, and *circa ardua regni*) to be troubled and disquieted on account of his wife's domestic affairs; and therefore it vests in the queen a power of transacting her own concerns, without the intervention of the king, as if she were an unmarried woman.

The queen hath also many exemptions, and minute prerogatives. For instance: she pays no toll; nor is she liable to any amercement in any court. But in general, unless where the law has expressly declared her exempt, she is upon the same footing with other subjects; being to all intents and purposes the king's subject, and not his equal: in like manner as in the imperial law, *Augustus legibus solutus non est.*

The queen hath also some pecuniary advantages, which form her distinct revenue: as, in the first place, she is entitled to an ancient perquisite called *queen gold*, or *aurum reginæ*; which is a royal revenue belonging to every queen consort during her marriage with the king, and due from every person who hath made a voluntary offering or fine to the king, amounting to 10 merks or upwards, for and in consideration of any privileges, grants, licences, pardons, or other matter of royal favour conferred upon him by the king: and it is due in the proportion to one-tenth part more, over and above the entire offering or fine made to the king, and becomes an actual debt of record to the queen's majesty by the mere recording of the fine. As, if 100 merks of silver be given to the king for liberty to take in mortmain, or to have a fair, market, park, chase, or free-warren; there the queen is entitled to 10 merks in silver, or (what was formerly an equivalent denomination) to one merk in gold, by the name of *queen gold*, or *aurum reginæ*. But no such payment is due for any aids or subsidies granted to the king in parliament or convocation; or for fines imposed by courts on offenders against their will; nor for voluntary presents to the king, without any consideration moving from him to the subject; nor for any sale or contract whereby the present revenues or possessions of the crown are granted away or diminished

The original revenue of our ancient queens, before and soon after the conquest, seems to have consisted in certain

certain reservations or rents out of the demesne lands of the crown, which were expressly appropriated to her majesty, distinct from the king. It is frequent in domesday book, after specifying the rent due to the crown, to add likewise the quantity of gold or other renders reserved to the queen. These were frequently appropriated to particular purposes: to buy wood for her majesty's use, to purchase oil for lamps, or to furnish her attire from head to foot, which was frequently very costly, as one single robe in the fifth year of Henry II. stood the city of London in upwards of 80 pounds: A practice somewhat similar to that of the eastern countries, wherewhole cities and provinces were specifically assigned to purchase particular parts of the queen's apparel. And for a farther addition to her income, this duty of queen gold is supposed to have been originally granted; those matters of grace and favour, out of which it arose, being frequently obtained from the crown by the powerful intercession of the queen. There are traces of its payment, though obscure ones, in the book of domesday, and in the great pipe-roll of Henry I. In the reign of Henry II. the manner of collecting it appears to have been well understood; and it forms a distinct head in the ancient dialogue of the exchequer written in the time of that prince, and usually attributed to Gervase of Tilbury. From that time downwards, it was regularly claimed and enjoyed by all the queen consorts of England till the death of Henry VIII.; though after the accession of the Tudor family, the collecting of it seems to have been much neglected: and there being no queen consort afterwards till the accession of James I. a period of near 60 years, its very nature and quantity then became a matter of doubt; and being referred by the king to the chief-justices and chief baron, their report of it was so very unfavourable, that his consort Queen Anne, though she claimed it, yet never thought proper to exact it. In 1635, 11 Car. I. a time fertile of expedients for raising money upon dormant precedents in our old records (of which ship-money was a fatal instance), the king, at the petition of his queen Henrietta Maria, issued out his writ for levying it: but afterwards purchased it of his consort at the price of 10,000 pounds; finding it, perhaps, too trifling and troublesome to levy. And, when afterwards, at the Restoration, by the abolition of military tenures, and the fines that were consequent upon them, the little that legally remained of this revenue was reduced to almost nothing at all; in vain did Mr Prynne, by a treatise that does honour to his abilities as a painful and judicious antiquarian, endeavour to excite Queen Catherine to revive this antiquated claim.

Another ancient perquisite belonging to the queen consort, mentioned by all our old writers, and therefore only worthy notice, is this: that on the taking a whale on the coasts, which is a royal fish, it shall be divided between the king and queen; the head only being the king's property; and the tail of it the queen's. *De sturgione observetur, quod rex illum habebit integrum; de balena vero sufficit, si rex habeat caput, et regina caudam.* The reason of this whimsical division, as assigned by our ancient records, was, to furnish the queen's wardrobe with whale-bone.

But farther: though the queen is in all respects a subject, yet, in point of the security of her life and person, she is put upon the same footing with the king. It is equally treason (by the statute 25 Edward III.) to imagine or compass the death of our lady the king's companion, as of the king himself; and to violate or defile the queen consort, amounts to the same high crime; as well in the person committing the fact, as in the queen herself if consenting. A law of Henry VIII. made it treason also for any woman who was not a virgin to marry the king without informing him thereof: but this law was soon after repealed; it trespassing too strongly, as well on natural justice as female modesty. If however the queen be accused of any species of treason, she shall (whether consort or dowager) be tried by the peers of parliament, as Queen Ann Boleyn was in 28 Hen. VIII.

The husband of a queen regnant, as Prince George of Denmark was to Queen Anne, is her subject; and may be guilty of high treason against her: but, in the instance of conjugal fidelity, he is not subjected to the same penal restrictions. For which the reason seems to be, that if a queen consort is unfaithful to the royal bed, this may debase or bastardize the heirs to the crown; but no such danger can be consequent on the infidelity of the husband to a queen regnant.

2. A queen *dowager* is the widow of the king, and as such enjoys most of the privileges belonging to her as queen consort. But it is not high treason to conspire her death, or to violate her chastity; for the same reason as was before alleged, because the succession to the crown is not thereby endangered. Yet still, *pro dignitate regali,* no man can marry a queen dowager without special licence from the king, on pain of forfeiting his lands and goods. This Sir Edward Coke tells us, was enacted in parliament in 6 Henry VI. though the statute be not in print. But she, though an alien born, shall still be entitled to dower after the king's demise, which no other alien is. A queen dowager when married again to a subject, doth not lose her regal dignity, as peeresses-dowager do when they marry commoners. For Katherine, queen dowager of Henry V. though she married a private gentleman, Owen ap Meredith ap Theodore, commonly called *Owen Tudor;* yet, by the name of *Katherine queen of England,* maintained an action against the bishop of Carlisle. And so the dowager of Navarre marrying with Edmond the brother of King Edward I. maintained an action of dower by the name of *queen of Navarre.*

3. The prince of Wales, or heir apparent to the crown, and also his royal consort and the princess royal, or eldest daughter of the king, are likewise peculiarly regarded by the laws. For, by statute 25 Edw. III. to compass or conspire the death of the former, or to violate the chastity of either of the latter, are as much high treason as to conspire the death of the king or violate the chastity of the queen. And this upon the same reason as was before given; because the prince of Wales is next in succession to the crown, and to violate his wife might taint the blood-royal with bastardy; and the eldest daughter of the king is also alone inheritable to the crown on failure of issue male, and therefore more respected by the laws than any of her younger sisters; insomuch that upon this, united with other (feodal) principles, while our military tenures were in force, the king might levy an aid

aid for marrying his eldest daughter, and her only. The heir apparent to the crown is usually made prince of Wales and earl of Chester, by special creation and investiture; but being the king's eldest son, he is by inheritance duke of Cornwall, without any new creation.

4. The rest of the royal family may be considered in two different lights, according to the different senses in which the term *royal family* is used. The larger sense includes all those who are by any possibility inheritable to the crown. Such, before the revolution, were all the descendants of William the Conqueror; who had branched into an amazing extent by intermarriages with the ancient nobility. Since the revolution and act of settlement, it means the Protestant issue of the princess Sophia; now comparatively few in number, but which in process of time may possibly be as largely diffused. The more confined sense includes only those who are in a certain degree of propinquity to the reigning prince, and to whom therefore the law pays an extraordinary regard and respect; but after that degree is past they fall into the rank of ordinary subjects, and are seldom considered any farther unless called to the succession upon failure of the nearer lines. For though collateral consanguinity is regarded indefinitely with respect to inheritance or succession, yet it is and can only be regarded within some certain limits in any other respect, by the natural constitution of things and the dictates of positive law.

The younger sons and daughters of the king, and other branches of the royal family, who are not in the immediate line of succession, were therefore little farther regarded by the ancient law, than to give them a certain degree of precedence before all peers and public officers as well ecclesiastical as temporal. This is done by the statute 31 Henry VIII. c. 10. which enacts, that no person except the king's children shall presume to fix or have place at the side of the cloth of estate in the parliament chamber; and that certain great officers therein named shall have precedence, above all dukes, except only such as shall happen to be the king's son, brother, uncle, nephew (which Sir Edward Coke explains to signify grandson or *nepos*), or brother's or sister's son. But under the description of the king's *children*, his *grandsons* are held to be included, without having recourse to Sir Edward Coke's interpretation of *nephew*; and therefore when his late majesty King George II. created his grandson Edward, the second son of Frederick prince of Wales deceased, duke of York, and referred it to the house of lords to settle his place and precedence, they certified that he ought to have precedence next to the late duke of Cumberland, the then king's youngest son; and that he might have a seat on the left hand of the cloth of estate. But when, on the accession of his present majesty, these royal personages ceased to take place as the *children*, and ranked only as the *brother* and *uncle* of the king, they also left their seats on the side of the cloth of estate; so that when the duke of Gloucester, his majesty's second brother, took his seat in the house of peers, he was placed on the upper end of the earls bench (on which the dukes usually sit) next to his royal highness the duke of York. And in 1717, upon a question referred to all the judges by King George I. it was resolved, by the opinion of ten against the other two, that the education and care of all the king's grandchildren, while minors, did belong of right to his majesty as king of this realm, even during their father's life. But they all agreed, that the care and approbation of their marriages, when grown up, belonged to the king their grandfather. And the judges have more recently concurred in opinion, that this care and approbation extend also to the presumptive heir of the crown; though to what other branches of the royal family the same did extend, they did not find precisely determined. The most frequent intances of the crown's interposition go no farther than nephews and nieces; but examples are not wanting of its reaching to more distant collaterals. And the statute of Henry VI. before mentioned, which prohibits the marriage of a queen-dowager without the consent of the king, assigns this reason for it: "because the disparagement of the queen shall give greater comfort and example to other ladies of estate, who are of the blood-royal, more lightly to disparage themselves." Therefore by the statute 28 Hen. VIII. c. 18. (repealed, among other statutes of treasons, by 1 Edw. VI. c. 12.) it was made high treason for any man to contract marriage with the king's children or reputed children, his sisters or aunts *ex parte paterna*, or the children of his brethren or sisters; being exactly the same degrees to which precedence is allowed by the statute 31 Hen. VIII. before mentioned. And now, by statute 12 Geo III. c. 11. no descendant of the body of King Geo. II. (other than the issue of princesses married into foreign families) is capable of contracting matrimony, without the previous consent of the king signified under the great seal; and any marriage contracted without such a consent is void. Provided, that such of the said descendants as are not above 25, may, after a twelvemonth's notice given to the king's privy-council, contract and solemnize marriage without the consent of the crown; unless both houses of parliament shall, before the expiration of the said year, expressly declare their disapprobation of such intended marriage. And all persons solemnizing, assisting, or being present at any such prohibited marriage, shall incur the penalties of the statute of *præmunire*.

Royal Oak, a fair spreading tree at Boscobel, in the parish of Donnington in Staffordshire, the boughs of which were once covered with ivy; in the thick of which King Charles II. sat in the day-time with Colonel Careless, and in the night lodged in Boscobel house: so that they are mistaken who speak of it as an old hollow oak: it being then a gay flourishing tree, surrounded with many more. Its poor remains are now fenced in with a handsome wall, with this inscription in gold letters: *Felicissimam arborem quam in asylum potentissimi regis Caroli II. Deus op. max. per quem reges regnant, hic crescere voluit*, &c.

Royal Society. See Society.

ROYALTIES, the rights of the king; otherwise called the *king's prerogative*, and the *regalia*. See Prerogative and Regalia.

ROYENIA, a genus of plants belonging to the decandria class; and in the natural method ranking under the 18th order, *Bicornes*. See Botany *Index*.

ROYSTON, a town of Hertfordshire in England, seated in E. Long. 0. 1. N. Lat. 52. 3. It is seated in a fertile vale full of inns; the market is very considerable for corn, and it contained 1309 inhabitants in

in 1811. There was lately discovered, almost under the market place, a subterraneous chapel of one Rosia, a Saxon lady: it has several altars and images cut out of the chalky sides, and is in form of a sugar-loaf, having no entrance but at the top.

RUBBER, India. See Caoutchouc.

RUBENS, Sir Peter Paul, the most eminent of the Flemish painters, was born in 1577; but whether at Antwerp or Cologne is uncertain. His father, who was a counsellor in the senate of Antwerp, had been forced by the civil wars to seek refuge in Cologne, and during his residence there Rubens is commonly said to have been born.

The genius of Rubens, which began to unfold itself in his earliest years, was cultivated with peculiar care, and embellished with every branch of classical and polite literature.

He soon discovered a strong inclination for designing; and used to amuse himself with that employment in his leisure hours, while the rest of his time was devoted to other studies. His mother, perceiving the bias of her son, permitted him to attend the instructions of Tobias Verhaecht a painter of architecture and landscape. He next became the pupil of Adam Van Oort, but he soon found that the abilities of this master were insufficient to answer his elevated ideas. His surly temper too was disgustful to Rubens, whose natural disposition was modest and amiable.

Anxious to find an artist whose genius and dispositions were congenial with his own, he became the disciple of Octavio Van Veen, generally known by the name of Otho Venius, a painter of singular merit, and who was not only skilled in the principles of his art, but also distinguished for learning and other accomplishments. Between the master and scholar a remarkable similarity appeared in temper and inclination; indeed, in the whole turn of their minds. It was this congeniality of sentiments which animated Rubens with that ardent passion for the art of painting which at length determined him to pursue it as a profession. From this time he gave up his whole mind to it; and so successful were his exertions, that he soon equalled his master.

In order to arrive at that perfection which he already beheld in idea, it became requisite to study the productions of the most eminent artists. For this purpose he travelled through Italy, visiting the most valuable collections of paintings and antique statues with which that country abounds.

Sandrat, who was intimately acquainted with Rubens, informs us, that he was recommended in the most honourable manner to the duke of Mantua by the archduke Albert, who had witnessed his talents in the finishing of some fine paintings designed for his own palace. At Mantua he was received by the duke with the most flattering marks of distinction, and had opportunities of improving himself, which he did not neglect. Here he carefully studied the works of Julio Romano. He next visited Rome, where he had an opportunity of examining the productions of Raphael. The paintings of Titian and Paolo Veronese called him to Venice, where he improved himself in the art of colouring.

He continued in Italy seven years. At length receiving intelligence that his mother was taken ill, he hastened to Antwerp: but his filial affection was not gratified with a sight of her; she died before his arrival. He married soon after; but his wife dying at the end of four years, he retired from Antwerp for some time, and endeavoured to soothe his melancholy by a journey to Holland. At Utrecht he visited Hurtort, whom he greatly esteemed.

The fame of Rubens was now spread over Europe. He was invited by Mary of Medicis queen of Henry IV. of France to Paris, where he painted the galleries in the palace of Luxembourg. These form a series of paintings which delineate the history of Mary; and afford a convincing proof how well qualified he was to excel in allegorical and emblematical compositions. While at Paris he became acquainted with the duke of Buckingham, who was so taken with his great talents and accomplishments, that he judged him well qualified to explain to Isabella, the wife of Albert the archduke the cause of the misunderstanding which had taken place between the courts of England and Spain. In this employment Rubens acquitted himself with such propriety, that Isabella appointed him envoy to the king of Spain, with a commission to propose terms of peace, and to bring back the instructions of that monarch. Philip was no less captivated with Rubens: he conferred on him the honour of knighthood, and made him secretary to his privy council. Rubens returned to Brussels, and thence passed over into England in 1630 with a commission from the Catholic king to negociate a peace between the two crowns. He was successful in his negociation, and a treaty was concluded. Charles I. who then filled the British throne, could not receive Rubens in a public character on account of his profession; nevertheless, he treated him with every mark of respect. Having engaged him to paint some of the apartments of Whitehall, he not only gave him a handsome sum of money, but, as an acknowledgment of his merit, created him a knight; and the duke of Buckingham, his friend and patron, purchased of him a collection of pictures, statues, medals, and antiques, with the sum of L.10,000.

He returned to Spain, where he was magnificently honoured and rewarded for his services. He was created a gentleman of the king's bedchamber, and named secretary to the council of state in the Netherlands. Rubens, however, did not lay aside his profession. He returned to Antwerp, where he married a second wife called *Helena Forment*, who, being an eminent beauty, helped him much in the figures of his women. He died on 30th May 1640, in the 63d year of his age; leaving vast riches to his children. Albert his eldest son succeeded him in the office of secretary of state in Flanders.

As Rubens was possessed of all the ornaments and advantages that render a man worthy to be esteemed or courted, he was always treated as a person of consequence. His figure was noble, his manners engaging, and his conversation lively. His learning was universal. Though his favourite study must have occupied him much, yet he found time to read the works of the most celebrated authors, and especially the poets. He spoke several languages perfectly, and was an excellent statesman.

His house at Antwerp was enriched with every thing in the arts that was rare and valuable. It contained one spacious apartment, in imitation of the rotunda at Rome, adorned with a choice collection of pictures which

which he had purchased in Italy; part of which he sold to the duke of Buckingham.

His genius qualified him to excel equally in every thing that can enter into the composition of a picture. His invention was so fertile, that, if he had occasion to paint the same subject several times, his imagination always supplied him with something striking and new. The attitudes of his figures are natural and varied, the carriage of the head is peculiarly graceful, and his expression noble and animated.

He is by all allowed to have carried the art of colouring to its highest pitch; he understood so thoroughly the true principles of the chiaro-scuro, that he gave to his figures the utmost harmony, and a prominence resembling real life. His pencil is mellowed, his strokes bold and easy, his carnation glows with life, and his drapery is simple, but grand, broad, and hung with much skill.

The great excellence of Rubens appears in his grand compositions: for as they are to be viewed at a distance, he laid on a proper body of colours with uncommon boldness, and fixed all his tints in their proper places; so that he never impared their lustre by breaking or torturing them; but touched them in such a manner as to give them a lasting force, beauty, and harmony.

It is generally allowed, that Rubens wanted correctness in drawing and designing: some of his figures being heavy and too short, and the limbs in some parts not being justly sketched in the outline. Though he had spent seven years in Italy in studying those antiques by which other celebrated artists had modelled their taste; though he had examined them with such minute attention as not only to perceive their beauties, but to be qualified to describe them in a Dissertation which he wrote on that subject: yet he seems never to have divested himself of that heavy style of painting, which, being peculiar to his native country, he had insensibly acquired. The astonishing rapidity too with which he painted, made him fall into inaccuracies, from which those works that he finished with care are entirely exempted.

Among his finished pieces may be mentioned the Crucifixion of Jesus Christ between the Two Thieves, which was very lately to be seen at Antwerp: but of all his works the paintings in the palace of Luxembourg best display his genius and his style.

It is the observation of Algarotti, that he was more moderate in his movements than Tintoretto, and more soft in his chiaro-scuro than Carravaggio; but not so rich in his compositions, nor so light in his touches, as Paolo Veronese; in his carnations less true than Titian, and less delicate than Vandyck. Yet he contrived to give his colours the utmost transparency and harmony, notwithstanding the extraordinary deepness of them; and he possessed a strength and grandeur of style which were entirely his own.

RUBIA. Madder; a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 47th order, *Stellatæ*. See Botany *Index*; and for an account of the use of madder as a dye-stuff, see Dyeing *Index*.

Madder-root is also used in medicine. The virtues attributed to it are those of a detergent and aperient; whence it has been usually ranked among the opening roots, and recommended in obstructions of the viscera, particularly of the kidneys, in coagulations of the blood from falls or bruises, in the jaundice, and beginning dropsies.

This root, taken internally, tinges the urine of a deep red colour; and in the Philosophical Transactions we have an account of its producing a like effect upon the bones of animals who had it mixed with their food: all the bones, particularly the more solid ones, were said to be changed, both externally and internally, to a deep red; but neither the fleshy nor cartilaginous parts suffered any alterations: some of these bones macerated in water for many weeks together, and afterwards steeped and boiled in spirit of wine, lost none of their colour, nor communicated any tinge to the liquors. This root, therefore, was concluded to be possessed of great subtilty of parts, and its medical virtues hence to deserve inquiry. The same trials, however, made by others, have not been found to produce the same effects as those above mentioned.—Of late the root has come into great reputation as an emmenagogue.

RUBININSKA, one of the northern provinces of Russia, bounded by the province of Dwina on the north, by Syrianes on the east, by Belozera on the south, and by the lake Onega on the west.

RUBRIC, in the canon law, signifies a title or article in certain ancient law-books; thus called because written, as the titles of the chapters in our ancient bibles are, in red letters.

RUBUS, the Bramble, or *Raspberry-bush*; a genus of plants belonging to the icosandria class; and in the natural method ranking under the 35th order, *Senticosæ*. See Botany *Index*. The principal species is the common raspberry, which, with its varieties, demands culture in every garden for their fruit; particularly the common red kind, white sort, and twice-bearing raspberry; all of which are great bearers; but for the general plantations, we choose principally the common red and the white kind, as being generally the greatest bearers of all; planting also a share of the twice-bearing sort, both as a curiosity and for the sake of its autumnal crops of fruit, which in favourable seasons ripen in tolerable perfection; observing to allow all the sorts some open exposure in the kitchen garden, though they will prosper in almost any situation.

The other species are considered as plants of variety, for hardy plantations in the shrubbery. Some of them are also very ornamental flowering plants; particularly the Virginian flowering raspberry, and the double-blossomed bramble, which answer well for ornamental compartments; and the white-berried bramble, which is a great curiosity. All the other species and varieties serve to diversify large collections.

RUBY, a species of precious stone, belonging to the siliceous genus. See Mineralogy *Index*. The ruby is of various colours; as, of a deep red colour inclining a little to purple; the *carbuncle* of Pliny; the spinell, of the colour of a bright corn poppy flower; the balass or pale red inclining to violet. Tavernier and Dutens inform us, that in the East Indies all coloured gems are named *rubies*, without regard to what their colours may be; and that the particular colour is added to the name of each in order to distinguish them from one another. The spinnel rubies are above half the value of diamonds of

of the same weight; the balass is valued at 30 shillings per carat. Tavernier mentions 108 rubies in the throne of the Great Mogul, from 100 to 200 carats, and of a round one almost 2½ ounces: there is also mention made by other travellers of rubies exceeding 200 carats in weight. According to Dutens, a perfect ruby, if it weigh more than 3½ carats, is of greater value than a diamond of the same weight. If it weigh one carat, it is worth ten guineas; if two carats, 40 guineas; three carats, 150 guineas; if six carats, upwards of 1000 guineas.

Rubies, it is said, are artificially made from Brasilian topazes of a smoky appearance, by giving them a gradual heat in a crucible filled with ashes, until it be red hot.

Rock Ruby, the *amethystizontas* of the ancients, is found in Syria, Calcutta, Cananor, Cambaya, and Ethiopia. It is the most valued of all the varieties of garnets, and is frequently sold as a ruby under the name of *rubinus Russicum*.

RUCTATION, a ventosity arising from indigestion, and discharging itself at the mouth with a very disagreeable noise.

RUDBECK, Olaus, a learned Swedish physician, born of an ancient and noble family in 1630. He became professor of medicine at Upsal, where he acquired great applause by his extensive knowledge; and died in 1702. His principal works are, 1. *Exercitatio anatomica, exhibens ductus novos hepaticos aquosos, et vasa glandularum serosa*, in 4to. He there asserts his claim to the discovery of the lymphatic vessels, against the pretensions of Thomas Bartholin. 2. *Athlantica, sive Manheim, vera Japheti posterorum sedes ac patria*, 4 vols. folio, is full of strange paradoxes supported with profound learning: he there endeavours to prove, that Sweden was the country whence all the ancient Pagan divinities and our first parents were derived; and that the Germans, English, French, Danes, Greeks, and Romans, with all other nations, originally came from thence.

RUDBECKIA, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

RUDDER, in *Navigation*, a piece of timber turning on hinges in the stern of the ship, and which, opposing sometimes one side in the water and sometimes another, turns or directs the vessel this way or that. See Helm.

In the seventh volume of the Transactions of the Society instituted at London for the Encouragement of Arts, Manufactures, and Commerce, there is explained a method of supplying the loss of a ship's rudder at sea. The invention, which is Capt. Pakenham's of the royal navy, has been approved by Admiral Cornwallis, the commissioners of the admiralty, by the society in whose transactions the account of it was first published, and who presented to Capt. Pakenham their gold medal, by the Trinity-house, by the managing owners of East India shipping, by the duke of Sudermania then regent of Sweden, and by the society for the improvement of naval architecture. The substitute here recommended for a lost rudder, says the inventor, is formed of those materials without which no ship goes to sea, and its construction is simple and speedy. Capt. Pakenham, however, did not give a particular account of his invention to the society whom he addressed, and to whom he sent a model of his invention, till such time as he had an opportunity of reducing the theory he had conceived to practice. On the 7th of July 1788, he made this trial with the Merlin of Newfoundland; and he declares that, during the different manœuvres of tacking and wearing, he could not discover the least variation between the operation of the machine and that of the ship's rudder: she was steered with the same ease by one man, and answered the helm in every situation fully as quick. Admiral Cornwallis certifies the same with respect to the Crown of 64 guns, which lost her rudder on the Kentish Knock, when with the substitute she was steered to Portsmouth with the utmost ease in a heavy gale, and, as the admiral asserts, it would have taken her to the East Indies.

Plate CCCCLXVI.

The materials and construction are thus described in the Transactions. "N° 1. A topmast inverted; the fid-hole to ship the tiller in, and secured with hoops from the anchor stocks; the heel forming the head of the rudder. N° 2. The inner half of a jibb-boom. N° 3. The outer half of a jibb-boom. N° 4. A fish: the whole of these materials well bolted together:—in a merchantman her ruff-tree. N° 5. A cap, with the square part cut out to fit the stern-post, and acting as a lower gudgeon, secured to the stern-post with hawsers, leading from the bolts of the cap, under the ship's bottom, into the hawse-holes, and hove well tort. N° 6. A plank, or, if none on board, the ship's gangboards. N° 7. Anchor-stocks, made to fit the topmast as partners, secured to the deck, and supplying the place of the upper gudgeon, and in a merchant ship the clamps of her windlass. N° 8. A stern-post. N° 9. Hoops from the anchor-stocks. N° 10. Pigs of ballast, to sink the lower part. The head of the rudder to pass through as many decks as you wish."

On this the Captain makes the following remarks: "It might probably be supposed, that a difficulty would occur in bringing the jaws of the cap to embrace the stern-post; but this will at once be obviated, when it is remembered that the top-chains, or hawsers, leading from each end of the jaws, under the ship's bottom, are in fact a continuance of the jaws themselves. Nor can it be apprehended that the cap, when fixed, may be impelled from its station, either by the efforts of the sea, or the course of the ship through the water, though even the hawsers, which confine it in the first instance, should be relaxed:—the experiment proves, that the partners must be first torn away, or the main-piece broken off.

"Since the improved state of navigation, notwithstanding remedies have been found in general for the most disastrous accidents at sea, experience has evinced that nothing complete had been hitherto invented to supply the loss of a rudder. The first expedient within my knowledge were cables veered astern, with tackles leading from them to the ship's quarters. This practice was superseded by the invention of the machine usually called *the Ipswich machine*; but the construction of it is complex and unwieldy, and vessels are seldom found in possession of the materials which forms it. Commodore Byron, in the Journal of his Voyage round the World, says, that the Tamer, with every assistance from his own ship, was five days in constructing it. Besides, like the before-mentioned scheme, it can only operate to steer a

ship large (and that but very wildly), and of course, under the circumstance of a lee-shore, defeat the most skilful exertions of a seaman. Several other expedients have been adopted, which I shall not mention here, as the same defects equally appear in all.

"Thus it was apparent, that ample room was left for the discovery of some more certain resource than any of the former; and the scheme which has suggested itself to me, will, I trust, be found fully to answer the purpose intended. The materials are such as scarcely any ship can venture to sea without; and the construction so speedy, easy, and simple, that the capacity of the meanest sailor will at once conceive it. I need not, from mathematical principles, show the certainty of its effect, as it is formed and managed in the same manner as a ship's common rudder: and as the common rudder is certainly of all inventions the best calculated for guiding a vessel through the water, it will of course follow, that whatever substitute the nearest resembles that, must be best adapted to supply its loss."

RUDDIMAN, Thomas, one of the most eminent grammarians which Scotland has produced, was born in October 1674 at Raggel, in the parish of Boyndie and county of Banff. His father James Ruddiman was a farmer, and strongly attached to the house of Stuart.

Mr Ruddiman was instructed in the principles of Latin grammar at the parish school of Boyndie, where his application was so vigorous, and his progress so rapid, that he quickly surpassed all his class fellows. His master George Morrison, who was a skilful and attentive teacher, being unwilling to check his ardour for learning, permitted him to follow the impulse of his genius, and to advance without waiting the slow progress of the other boys.

The pleasure which the youthful mind receives from vivid description, though wild and romantic, approaches to ecstasy, and often makes an impression which remains indelible. While at school, the first book which charmed the opening mind of Ruddiman was Ovid's Metamorphoses; nor did he cease to relish the beauties of this author when his judgment was mature, for during the rest of his life Ovid was his favourite poet.

At the age of sixteen he became anxious to pursue his studies at the university; but his father thinking him too young, opposed his inclination. Hearing of the competition trial, which was annually held at King's college, Aberdeen, for a certain number of bursaries on the foundation of that university, Ruddiman's ambition was kindled. Without the knowledge of his father, and with only a single guinea in his pocket, which his sister had privately given him, he set out for that place. On the road he was met by a company of gypseys, who robbed him of his coat, his shoes, his stockings, and his guinea. This misfortune did not damp his enterprising spirit: He continued his journey to Aberdeen, presented himself before the professors as a candidate; and, though he had neither clothes to give him a decent appearance nor friends to recommend him, he gained the first prize.

After attending the university four years, he obtained the degree of master of arts; an honour of which he was always proud. The thesis says, the disputation on this occasion lasted *ab aurora usque ad vesperum*, i. e. "from morning till night." Though Ruddiman was only 20 years of age when he left the university, it appears from a book intitled *Rhetoricorum Libri tres*, composed before this period, but never published, that he had then read the Roman classics with uncommon attention and advantage.

He was soon after engaged as a tutor to the son of Robert Young, Esq. of Auldbar, the great grandson of Sir Peter Young, who under the direction of Buchanan had been preceptor of James VI His income here must have been very small, or his situation unpleasant; for within a year he accepted the office of schoolmaster in the parish of Laurencekirk. The profession of schoolmaster in a country parish at that period could open no field for ambition, nor prospect of great emolument; for by an act of parliament passed in 1633, the salary appropriated to this office could not be increased above 200 merks Scots, or L.11, 2s. 2⅔d. sterling. In discharging the duties of this humble but important station, it is probable that he used Simson's *Rudimenta Grammatica*, which was then generally taught in the northern schools, and by which he himself had been instructed in the principles of Latin grammar.

When Ruddiman had spent three years and a half in this employment, the celebrated Dr Pitcairne happening to pass through Laurencekirk, was detained in that village by a violent storm. Pitcairne wanting amusement, inquired at the hostess if she could procure any agreeable companion to bear him company at dinner. She replied, that the schoolmaster, though young, was said to be learned, and, though modest, she was sure could talk. Pitcairne was delighted with the conversation and learning of his new companion, invited him to Edinburgh, and promised him his patronage.

When Ruddiman arrived in Edinburgh, the advocates library, which had been founded 18 years before by Sir George Mackenzie, attracted his curiosity and attention, and he was soon after appointed assistant-keeper under Mr Spottiswoode the principal librarian. His salary for executing this laborious office was L.8, 6s. 8d. He had besides a small honorary present from those who were admitted advocates for correcting their theses: he was also paid for copying manuscripts for the use of the library. And the faculty, before he had held the office two years, were so highly pleased with his conduct, that they made him a present of 50 pounds Scots, or L.4, 3s. 4d. sterling.

During the sitting of the court of session he attended the library from ten till three. But this confinement did not prevent him from engaging in other laborious duties: A part of his time was occupied in teaching young gentlemen the Latin language. Some he attended at their lodgings, some waited upon him, and some resided in his own house. An exact list of the names of those who attended him, expressing the date of their entry, and the sums which he was to receive from each, has been found in his pocket-book; a curious relick, which is still preserved.

When Ruddiman's merit as a scholar became better known, his assistance was anxiously solicited by those who were engaged in literary publications. Freebairne, a respectable bookseller of that period, prevailed upon him to correct and prepare for the press Sir Robert Sibbald's *Introductio ad historiam rerum à Romanis gestarum in ea Borealis Britanniæ parte quæ ultra murum Picticum est*. He received for his labour L.3 sterling.

At

Ruddiman.

At the request of Mr Spottiswoode librarian, for 5l. sterling he contributed his aid to the publication of Sir Robert Spottiswoode's Practiques of the Laws of Scotland.

In 1707 he commenced auctioneer, an employment not very suitable to the dignified character of a man of letters: but to this occupation he was probably impelled by necessity; for upon balancing his accounts at the end of the preceding year, the whole surplus was 28l. 2s. with prospects of 236l. 7s. 6d. Scots. Ruddiman had a family; and seems to have been a stranger to that foolish pride which has seduced some literary men into the opinion, that it is more honourable to starve than have recourse to an occupation which men of rank and opulence are accustomed to despise. The same year he published an edition of *Voluseni de Animi Tranquillitate Dialogus*, to which he prefixed the life of Volusenus. Volusenus or Wilson was a learned Scotsman, and had the honour to be patronised by Cardinal Wolsey (See WILSON). In 1709 he published *Johnstoni Cantici Solomonis Paraphrasis Poetica*, and *Johnstoni Cantica* with notes, which he dedicated in verse to his friend and patron Dr Pitcairne. The edition consisted of 200 copies. The expence of printing amounted to 5l. 10s. sterling, and he sold them at a shilling each copy.

The philological talents of Ruddiman were next directed to a more important object, in which they became more conspicuous and useful. Freebairne the bookseller proposed to publish a new edition of the Scottish translation of Virgil's Æneid by Gawin Douglas bishop of Dunkeld. Of the contributions which some eminent characters of the age presented, the most valuable were supplied by Ruddiman. Freebairne acknowledged in general terms this obligation, but has not done him the justice to inform the reader what these valuable contributions were, and Ruddiman's modesty restrained him from publicly asserting his claim. From the pocket-book which has been already mentioned, it appears that Ruddiman corrected the work and wrote the glossary; and there is strong reason to believe that he was the author of the 42 general rules for assisting the reader to understand the language of Douglas. To those who wish to be acquainted with the ancient language of this island, the glossary will be a treasure, as it forms a compendious dictionary of the Anglo-Saxon. For this elaborate work Ruddiman was allowed 8l. 6s. 8d. sterling.

The reputation of Ruddiman had now extended to a distance. He was invited by the magistrates of Dundee to be rector of the grammar school of that town; but the faculty of advocates, anxious to retain him, augmented his salary to 30l. 6s. 8d. sterling, and he declined the offer.

In 1711 he assisted Bishop Sage in publishing Drummond of Hawthornden's works; and performed the same favour to Dr Abercrombie, who was then preparing for the press his Martial Atchievements.

In 1713 he was deprived of his friend Dr Pitcairne. On this occasion he testified all the respect which friendship could inspire to the memory of his deceased patron and surviving family. He composed Pitcairne's epitaph, and conducted the sale of his library, which was disposed of to Peter the Great of Russia.

In 1714 the Rudiments of the Latin tongue were published. Eighteen or nineteen Latin grammars, composed by Scotchmen, had appeared before this period; yet such is the intrinsic value of this little treatise, that it soon superseded all other books on the subject, and is now taught in all the grammar schools in Scotland. It has also been translated into other languages.

He was next called upon to publish the works of Buchanan. The value of these he enhanced much by an elaborate preface, his *Tabula Regnum Scotiæ Chronologica* and *Propriorum Nominum Interpretatio*. The interpretation of proper names was highly requisite; for Buchanan has so disguised them in the Roman dress, that the original name is scarcely discernible; and the preface puts the reader on his guard against the chronological errors and factious spirit of the history. Ruddiman also added a learned dissertation, intitled *De Metris Buchananæis Libellus*, and subjoined annotations critical and political on the History of Scotland. As he espoused the cause of Queen Mary, he raised against himself a host of enemies, and gave occasion to that celebrated controversy which has been carried on with much keenness and animosity, and with little intermission, even to the present times. For this work Ruddiman was promised 40l. sterling.

He had now been so long accustomed to superintend the press, that he was led to form the plan of erecting a printing-office himself (A). Accordingly, in the year 1715, he commenced printer in partnership with his brother Walter, who had been regularly bred to the business. Some years after he was appointed printer to the university, along with James Davidson bookseller.

The first literary society formed in Scotland was instituted in the year 1718. It probably derived its origin from the factious and turbulent spirit of the times. The learned, anxious perhaps to find some respite from the political dissensions of the day, endeavoured to procure it in elegant amusement; for one of the fundamental articles of the new association was, that the "affairs of church and state should not be introduced." Ruddiman and the masters of the high-school had the honour to found this society. They were afterwards joined by Lord Kames.

In 1725, the first part of his *Grammaticæ Latinæ Institutiones*, which treated of etymology, was published. The second part, which explained the nature and principles of syntax, appeared in 1731. He also wrote a third part on prosody, which is said to be more copious and correct than any other publication on the subject. When urged to give it to the public, he said dryly, "The age has so little taste, the sale would not pay the

(A) It has long been an object of curiosity to ascertain the time at which the art of printing was introduced into Scotland. Mr Robertson, the late keeper of the records, discovered a patent of King James IV. which renders it certain that a printing-press was first established at Edinburgh during the year 1507, 30 years after Caxton had brought it into England. See PRINTING.

the expence." Of this work he published an abridgement, to which he subjoined an abstract of his prosody.

Ruddiman next engaged in the management of a newspaper, an employment for which his genius and industry seemed to render him well qualified. But those who should expect either much information or amusement from this publication, would perhaps be greatly disappointed. The newspaper which he conducted was the Caledonian Mercury, and was established in 1720 by William Rolland a lawyer. Ruddiman acted only in the capacity of printer for five years; but upon the death of Mr Rolland in 1729, the property was transferred to him, or to his brother Walter and him conjunctly. This paper continued in the family of Ruddiman till the year 1772, when it was sold by the trustees of his grand-children.

The Caledonian Mercury was at first printed three times a week, on Monday, Tuesday, and Thursday, in a small 4to of four pages, with two columns in each page, and 50 lines in each column; so that the whole paper contained only 400 lines. It now contains in its folio size 2480 lines.

Mr Ruddiman, after the death of Mr Spottiswoode librarian, remained for some time in his former station; but was at length appointed keeper of the library; though without any increase of salary; and some years after Mr Goodal, the defender of Queen Mary, succeeded him in the office of sub-librarian.

The assiduous application of Ruddiman, supported by such learning, was intitled to wealth, which now indeed flowed upon him in what was at that period deemed great abundance. On the first of October 1735, it appeared from an exact statement of his affairs, that he was worth L.1882 5s. 2d. sterling; and on the 20th of May, the ensuing year, his wealth had increased to L.1985 6s. 3d. sterling. In 1710 he valued his effects at L.24 14s. 9d. sterling.

In 1737 the schoolmasters and teachers in Edinburgh formed themselves into a society, in order to establish a fund for the support of their wives and children. Of this scheme Ruddiman was an active promoter, and was chosen treasurer. Perhaps it was this association which in 1742 gave the idea to the Scots clergy of forming their widows fund.

In 1739 he published *Selectus Diplomatum et Numismatum Scotiæ Thesaurus.* This work was projected and begun by Anderson (hence called *Anderson's Diplomata*), but was finished by Ruddiman. The preface, which is an excellent commentary on Anderson's performance, was written by Ruddiman, and displays a greater extent of knowledge than any of his other productions.

As Ruddiman had imbibed from his father those political principles which attached him to the family of Stuart, he probably did not remain an unconcerned spectator of the civil commotions which in 1745 agitated Scotland. He did not, however, take any active part in the rebellion. His principles, he has been heard to say induced him to be a quiet subject and a good citizen. He retired to the country during the summer of 1745; and while his fellow-citizens were spilling each others blood, he was more happily engaged in writing Critical Observations on Burman's Commentaries on Lucan's Pharsalia. The Caledonian Mercury was in the mean time marked with a jealous eye. His son, who had for some time been the principal manager of that newspaper, having copied a paragraph which was reckoned seditious from an English paper, was imprisoned. The solicitation of his father procured his release: but it was too late; for the unhappy young man had contracted a distemper in the tolbooth of Edinburgh which brought him to his grave.

During the last seventeen years of his life Ruddiman was almost incessantly engaged in controversy. To this he was in some measure compelled by the violent attacks which some critics of the times had successively made upon his works. He was first called upon by Benson, auditor in the exchequer, to determine the comparative merit of Buchanan and Johnston as poets. He gave a decided preference to Buchanan in perspicuity, purity, and variety of style; but, like a candid critic, allowed Johnston to be superior in the harmony of his numbers. His next antagonist was Logan, one of the ministers of Edinburgh, a weak illiterate man, but an obstinate polemic. The subject of contest was, whether the crown of Scotland was strictly hereditary, and whether the birth of Robert III. was legitimate? Ruddiman maintained the affirmative in both points, and certainly far surpassed his antagonist in the powers of reasoning. He proved the legitimacy of Robert by the public records of the kingdom with a force of argument which admits of no reply; but in discussing the first question (by which he was led to consider the contest between Bruce and Baliol) he was not so successful: for there are many instances in the history of Scotland in which the brother succeeded to the crown in preference to the son. He showed, however, that the Scottish crown was at no period properly elective; and that, according to the old licentious constitution of the kingdom, the right of Bruce, who was the nearest in blood to the royal stock, was preferable to the claim of Baliol though descended from the eldest daughter.

But the labours of Ruddiman did not end when the pen dropt from the feeble hand of Logan. He was soon called upon to repel the attacks of Love schoolmaster of Dalkeith, who maintained, in opposition to him, that Buchanan had neither repented of his treatment of Queen Mary, nor had been guilty of ingratitude to that princess. That Buchanan ever repented there is reason to doubt. Whether he was guilty of ingratitude, let the unbiassed determine, when they are assured by authentic records that Mary conferred on him a pension for life of 500 pounds Scots.

When Ruddiman had arrived at his eightieth year, and was almost blind he was assailed by James Man, master of an hospital at Aberdeen, with a degree of rancour and virulence, united with some learning and ability, which must have touched him in a sensible manner, and alarmed his fears for his reputation after his decease. He was called a *finished pedant, a furious calumniator*, and a *corrupter of Buchanan's works.* The venerable old man again put on his armour, entered the lists, and gained a complete victory. Man, with all his acuteness, could only point out twenty errors in two folio volumes. Some of these were typographical, some trifling, and some doubtful. Ruddiman, with much pleasantry, drew up against Man an account of 469 errors, consisting of 14 articles, of which two or three may be produced as a specimen. 1. Falsehoods and prevarications,

variations, 20. 2. Absurdities, 69. 3. Passages from classic authors which were misunderstood by Man, 10. The triumph which he gained over this virulent adversary he did not long enjoy; for he died at Edinburgh on the 19th of January 1757, in the 83d year of his age, and was buried in the Grey Friars churchyard without any monument to distinguish his grave.

He was three times married, but left behind him only one daughter, Alison, who was married in 1747 to James Stewart, Esq. He is supposed to have died worth L.3000 sterling.

He was of the middle size, of a thin and straight make, and had eyes remarkably piercing. Of his talents and learning his works afford the most satisfactory proofs. His memory was tenacious and exact. He could repeat long passages of his favourite poet Ovid, to the amount of 60 lines, and without omitting a word. He was so great a master in the Latin language, that he has perhaps been equalled by none since the days of Buchanan.

Ruddiman has left a character unstained by vice, and distinguished by many virtues. His piety was examplary. He spent Sunday in religious employment; and we are informed had prayers read to him every morning by his amanuensis when the infirmities of age required such an assistant. He was frugal of his time, neither indolent nor fond of amusement; and so remarkably temperate, that it is said he was never intoxicated. Though often forced into controversy, and treated with insolence, he never descended to scurrility and abuse, nor cherished resentment against his enemies. His candour was much admired in one instance in the favourable character which he published in the Caledonian Mercury of his antagonist Love (B), after his decease. Upon the whole, it must be allowed that Ruddiman has been of great service to classical literature, and an honour to his native country.

RUDESHEIM, a rich village of the Rhinegau, situated about five miles from the city of Mentz, contains about 2500 inhabitants. The wine of this place is looked upon as without comparison the best of the Rhinegau, and consequently of all Germany. Baron Riesbeck says, he found it much more fiery than that of Hochheim; but that for pleasantness of taste there is no comparison betwixt them. The best Rudesheim, like the best Hochheimer, sells upon the spot for three guilders the bottle. "You can (says our author) have no tolerable wine here for one guilder, nor any very good for two; at least I should prefer the worst Burgundy I ever tasted to any Rudesheimer I met with either here or at Mentz for these prices. Indeed the wine of our host (a rich ecclesiastic) was far better than any we could get at the inn. It stands to reason, that the same vintage furnishes grapes of very different degrees of goodness; but besides this, it is in the Rhinegau as every where else. The best wines are generally sent abroad by the poor and middling inhabitants, and the worst kept for internal consumption; for the expence of the carriage being the same in both cases, strangers had much rather pay a double price for the good than have the bad. It is only rich people, such as our host was, who can afford to keep the produce of their land for their own drinking. Upon this principle, I have eaten much better Swiss cheeses out of Switzerland than in it, and have drank much better Rhenish in the inns of the northern parts of Germany than in the country where the wine grows. The position of the country also contributes to render the wine dearer than it would otherwise be. As the best wine grows in its more northern parts, the easy transport by the Rhine to Holland, and all parts of the world, raises its price above its real value. The place where the flower of the Rudesheim wine grows is precisely the neck of the land, formed by the winding of the Rhine to the north, after it has run to the westward from Mentz hither. This neck, which is a rock almost perpendicular, enjoys the first rays of the rising and the last of the setting sun. It is divided into small low terraces, which are carried up to the utmost top of the hill like steep stairs; these are guarded by small walls and earthen mounds, which are often washed away by the rain. The first vine was brought hither from France, and they still call the best grape the Orleannois. They plant the vine stocks very low, scarce ever more than four or five feet high. This way of planting the vine is favourable to the production of a great deal of wine, but not to its goodness, as the phlegmatic and harsh parts of it would certainly evaporate more, if the sap were refined through higher and more numerous canals. This is undoubtedly the reason why every kind of Rhenish has something in it that is harsh, sour, and watery. The harvest of the best vineyards, which are the lower ones, in the above mentioned neck of land, is often bought before-hand, at the advanced price of some ducats, by Dutch and other merchants. It must be a very rich stock to yield above four measures of wine.—You may easily imagine, that the cultivation of vineyards must be very expensive in this country, as the dung, which is extremely dear, must be carried up to the top of the mountains on the peasants shoulders."

RUDIMENTS, the first principles or grounds of any art or science, called also the elements thereof.

RUE. See RUTA, BOTANY *Index*.

RUE, *Charles de la*, a French orator and poet, was born at Paris in 1643. He was educated at the college of the Jesuits, where he afterwards became a professor of humanity and rhetoric. At an early age his talent for poetry disclosed itself. In 1667, when he was only 24 years old, he composed a Latin poem on the conquests of Louis XIV. which was so much esteemed by the

(B) The following character of Love was published in the Caledonian Mercury of the 24th of September 1750. "On Thursday morning died at Dalkeith, after a lingering illness, in the 55th year of his age, Mr John Love, rector of the grammar-school there; who, for his uncommon knowledge in classical learning, his indefatigable diligence and strictness of discipline without severity, was justly accounted one of the most sufficient masters in this country." This character is doubtless just; though Love is now known to have been the schoolmaster satirized by Smollet in the beginning of his Roderick Random.

the celebrated Peter Corneille, that he translated it into French, presented it to the king, and at the same time passed so high encomiums on the superior merit of the original, that the author was received into the favour of that monarch, and ever after treated by him with singular respect.

De la Rue, anxious to preach the gospel to the Canadians, requested leave of absence from his superiors; but having destined him for the pulpit, they refused to comply with his request. Accordingly he commenced preacher, and became one of the most eminent orators of his age. In his discourses he would probably have been too lavish of his wit, if he had not been cautioned against it by a judicious courtier. "Continue (said he) to preach as you do. We will hear you with pleasure as long as you reason with us; but avoid wit. We value the wit contained in two verses of a song more than all that is contained in most of the sermons in Lent"

Respecting the delivery of sermons, he entertained an opinion quite opposite to the established practice of his countrymen. In France it was customary not to read sermons from the pulpit, but to recite them from memory. This he considered as a laborious task, not compensated by any advantages. On the contrary, he was of opinion that reading sermons was preferable.—The preacher, with his discourse before him, could read it with ease, free from that timidity and embarrassment which frequently attends the act of recollection; and he would save a considerable time which is usually spent in committing it to memory. In these sentiments many will not be disposed to acquiesce: but, without pretending to determine the question, it may be asserted, that a sermon, whether read or recited, if spoken in a serious manner, and with proper inflections and tones of voice, will produce all the effects for which a sermon is calculated.

De la Rue died at Paris on the 27th of May 1725, at the age of 82.

He was as amiable in society as he was venerable in the pulpit. His conversation was pleasant and instructive. His taste and knowledge enabled him to converse with ease, and to express himself with propriety on every subject. He charmed his superiors by his wit, and his inferiors by his affability. Though living amidst the bustle of the world, he was always prepared for the solitude of the closet and the retreat of the cloister. In the pulpit he poured forth the finest effusions of eloquence in the most animated and impressive manner.—He published Panegyries, Funeral Orations, and Sermons. His best sermon is that intitled *Des Calamités Publiques*, and his most admired funeral oration was composed on the Prince of Luxembourg. There are also tragedies of his writing, both in Latin and French, which were approved by Corneille. He was one of those who published editions of the classics for the use of the Dauphin. Virgil, which fell to his share, was published with notes, and a Life of the Poet, in 1675, 4to, and is a valuable and useful edition.

RUELLIA, a genus of plants belonging to the didynamia class; and in the natural method ranking under the 40th order, *Personatæ*. See BOTANY *Index*.

RUFF, a species of PERCA. See ICHTHYOLOGY *Index*.

RUFF, a species of TRINGA. See ORNITHOLOGY *Index*.

RUFFHEAD, DR OWEN, was the son of his Majesty's baker in Piccadilly; who buying a lottery ticket for him in his infancy, which happened to be drawn a prize of 500l. this sum was applied to educate him for the law. He accordingly entered in the Middle Temple; and seconded so well the views of his father, that he became a good scholar and an acute barrister. While he was waiting for opportunities to distinguish himself in his profession, he wrote a variety of pamphlets on the politics of the day; and was afterwards distinguished by his accurate edition of *The Statutes at Large*, in 4to He now obtained good business, though more as a chamber counsellor in framing bills for parliament than as a pleader; but his close application to study, with the variety of works he engaged in as an author, so impaired his constitution, that after the last exertion of his abilities to defend the conduct of administration toward Mr Wilkes, by a pamphlet entitled, "The Case of the late election for the county of Middlesex considered," he was prevented from receiving the reward of a place in the Treasury, by dying in 1769, at about 46 years of age. Some time before his death, Bishop Warburton engaged him to write his long promised *Life of Alexander Pope*; which, however, when executed, was very far from giving general satisfaction. The author attributed his ill success to the deficiency of his materials; while the public seemed rather to be of opinion that, as a lawyer, he ventured beyond his proper line, when he assumed the task of a critic in poetry.

RUFFLING, or RUFFING, a beat on the drum. Lieutenant-generals have three ruffles, major-generals two, brigadiers one, and governors one, as they pass by the regiment, guard, &c.

RUFINUS was born about the middle of the fourth century at Concordia, an inconsiderable town in Italy. At first he applied himself to the belles lettres, and particularly to the study of eloquence. To accomplish himself in this elegant art, he removed to Aquileia, a town at that time so celebrated, that it was called a second Rome. Having made himself acquainted with the polite literature of the age, he withdrew into a monastery, where he devoted himself to the study of theology. While thus occupied, St Jerome happened to pass through Aquileia. Rufinus formed an intimate friendship with him; but to his inexpressible grief was soon deprived of the company of his new friend, who continued his travels through France and Germany, and then set out for the east. Rufinus, unable to bear his absence, resolved to follow him. Accordingly he embarked for Egypt; and having visited the hermits who inhabit the deserts of that country, he repaired to Alexandria to hear the renowned Didymus. Here he was gratified with a sight of St Melania, of whose virtue and charity he had heard much. The sanctity of his manners soon obtained the confidence of St Melania, which continued without interruption during their residence in the east, a period of 30 years. The Arians, who swayed the ecclesiastical sceptre in the reign of Valens, persecuted Rufinus with great cruelty. They threw him into a dungeon, loaded him with chains, and after almost starving him to death, banished him to the deserts of Palestine. From this exile he was relieved by the pecuniary aid of St Melania, who employed her wealth in ransoming those confessors who had been condemned to prison or banishment.

St

St Jerome, supposing that Rufinus would immediately proceed to Jerusalem, wrote to one of his friends there, congratulating him on the prospect of so illustrious a visitor. To Jerusalem he went, and having built a monastery on the mount of Olives, he there assembled a great number of hermits, whom he animated to virtue by his exhortations. He converted many to the Christian faith, and persuaded more than 400 hermits who had taken part in the schism of Antioch to return to the church. He prevailed on many Macedonians and Arians to renounce their errors.

His attachment to the opinions of Origen set him at variance with St Jerome, who, being of a temper peculiarly irritable not only retracted all the praises which he had lavished upon him, but loaded him with severe reproaches. Their disputes, which were carried to a very indecent height, tended to injure Christianity in the eyes of the weak. Theophilus, their mutual friend, settled their differences; but the reconciliation was of short continuance. Rufinus having published a translation of the principles of Origen at Rome, was summoned to appear before Pope Anastasius. But he made a specious apology for not appearing, and sent a vindication of his work, in which he attempted to prove that certain errors, of which Origen had been accused, were perfectly consistent with the opinions of the orthodox. St Jerome attacked Rufinus's translation. Rufinus composed an eloquent reply, in which he declared that he was only the translator of Origen, and did not consider himself bound to sanction all his errors. Most ecclesiastical historians say that Rufinus was excommunicated by Pope Anastasius; but for this no good evidence has been brought. In 407, he returned to Rome; but the year after, that city being threatened by Alaric, he retired to Sicily, where he died in 410.

His works are, 1. A Translation of Josephus; 2. A Translation of several works of Origen; 3. A Latin Version of Ten Discourses of Gregory Nazianzen, and Eight of Basil's; 4. Cromatius of Aquileia prevailed on him to undertake a Translation of the Ecclesiastical History of Eusebius, which engaged him almost ten years. He made many additions to the body of the work, and continued the history from the 20th year of Constantine to the death of Theodosius the Great. Many parts of this work are negligently written, many things are recorded as facts without any authority but common report, any many things of great importance are entirely omitted. 5. A Vindication of Origen. 6. Two Apologies addressed to St Jerome. 7. Commentaries on the prophets Hosea, Joel, and Amos. 8. Lives of the Hermits. 9. An Explanation of the Creed.

RUGEN, an island in the Baltic sea, on the coast of Pomerania, over against Stralsund, about 23 miles in length and 15 in breadth, with the title of a principality. It is strong both by art and nature, abounds in corn and cattle, and now belongs to Prussia. The chief town is Bergen. E. Long 14. 30. N. Lat. 54. 32.

RUINS, a term particularly used for magnificent buildings fallen into decay by length of time, and whereof there only remains a confused heap of materials. Such are the ruins of the tower of Babel, of the tower of Belus, two days journey from Bagdat, in Syria, on the banks of the Euphrates; which are now no more than a heap of bricks, cemented with bitumen, and whereof we only perceive the plan to have been square. Such also are the ruins of a famous temple, or palace, near Schiras, in Persia, which the antiquaries will have to have been built by Ahasuerus, and which the Persians now call Tchelminar, or Chelminar; *q. d.* the 40 columns; because there are so many columns remaining pretty entire, with the traces of others; a great quantity of basso-relievos, and unknown characters, sufficient to shew the magnificence of the antique architecture. The most remarkable ruins now existing of whole cities are those of PALMYRA and PERSEPOLIS, of the grandeur of which some idea may be formed from the views given in the plates referred to from these articles, to which may be added those of HERCULANEUM and POMPEII. The magnificent ruins still remaining in Rome, Athens, &c. of particular edifices, as temples, palaces, amphitheatres, aqueducts, baths, &c. it were endless to enumerate, and beyond the plan of this work to represent.

RUIZIA, a genus of plants belonging to the monadelphia class; and in the natural method ranking under the 37th order, *Columniferæ*. See BOTANY *Index*.

RULE, in matters of literature, a maxim, canon, or precept, to be observed in any art or science.

RULE, in a monastic sense, a system of laws or regulations, according to which religious houses are governed, and which the religious make a vow, at their entrance, to observe. Such are the rules of the Augustines, Benedictines, Carthusians, Franciscans, &c. See AUGUSTINES, &c.

RULES of Court, in *Law*, are certain orders made from time to time in the courts of law, which attorneys are bound to observe, in order to avoid confusion; and both the plaintiff and defendant are at their peril also bound to pay obedience to rules made in court relating to the cause depending between them.

It is to be observed, that no court will make a rule for any thing that may be done in the ordinary course; and that if a rule be made, grounded upon an affidavit, the other side may move the court against it, in order to vacate the same, and thereupon shall bring into court a copy of the affidavit and rule. On the breach and contempt of a rule of court an attachment lies; but it is not granted for disobedience to a rule, when the party has not been personally served; nor for disobeying a rule made by a judge in his chamber, which is not of force to ground a motion upon, unless the same be entered.

A rule of court is granted every day the courts at Westminster sit, to prisoners of the King's-bench or Fleet prisons, to go at large about their private affairs.

RULE of Three. See ARITHMETIC and PROPORTION.

RULE, or *Ruler*, an instrument of wood or metal, with several lines delineated on it; of great use in practical mensuration. When a ruler has the lines of chords, tangents, sines, &c. it is called a *plane scale*.

RUM, a species of brandy or vinous spirits, distilled from sugar-canes.

Rum, according to Dr Shaw, differs from simple sugar-spirit, in that it contains more of the natural flavour or essential oil of the sugar-cane; a great deal of raw juice and parts of the cane itself being usually fermented in the liquor or solution of which the rum is prepared.

prepared. The unctuous or oily flavour of rum is often supposed to proceed from the large quantity of fat used in boiling the sugar; which fat, indeed, if coarse, will usually give a stinking flavour to the spirit in our distillations of the sugar liquor or wash, from our refining sugar-houses; but this is nothing of kin to the flavour of the rum, which is really the effect of the natural flavour of the cane.

The method of making rum is this: When a sufficient stock of the materials are got together, they add water to them, and ferment them in the common method, though the fermentation is always carried on very slowly at first; because at the beginning of the season for making rum in the islands, they want yeast or some other ferment to make it work: but by degrees, after this, they procure a sufficient quantity of the ferment, which rises up as a head to the liquor in the operation; and thus they are able afterwards to ferment and make their rum with a great deal of expedition, and in large quantities.

When the wash is fully fermented, or to a due degree of acidity, the distillation is carried on in the common way, and the spirit is made up proof: though sometimes it is reduced to a much greater strength, nearly approaching to that of alcohol or spirit of wine; and it is then called *double-distilled rum*. It might be easy to rectify the spirit, and bring it to much greater purity than we usually find it to be of: for it brings over in the distillation a very large quantity of the oil; and this is often so disagreeable, that the rum must be suffered to lie by a long time to mellow before it can be used; whereas, if well rectified, it would grow mellow much sooner, and would have a much less potent flavour.

The best state to keep rum in, both for exportation and other uses, is doubtless that of alcohol or rectified spirit. In this manner it would be transported in one half the bulk it usually is, and might be let down to the common proof-strength with water when necessary: for the common use of making punch, it would likewise serve much better in the state of alcohol; as the taste would be cleaner, and the strength might always be regulated to a much greater exactness than in the ordinary way.

The only use to which it would not so well serve in this state, would be the common practice of adulteration among our distillers; for when they want to mix a large portion of cheaper spirit with the rum, their business is to have it of the proof-strength, and as full of the flavouring oil as they can, that it may drown the flavour of the spirits they mix with it, and extend its own. If the business of rectifying rum was more nicely managed, it seems a very practicable scheme to throw out so much of the oil, as to have it in the fine light state of a clear spirit, but lightly impregnated with it: in this case it would very nearly resemble arack, as is proved by the mixing a very small quantity of it with a tasteless spirit, in which case the whole bears a very near resemblance to arack in flavour.

Rum is usually very much adulterated in Britain; some are so bare-faced as to do it with malt-spirit; but when it is done with molasses spirit, the tastes of both are so nearly allied, that it is not easily discovered. The best method of judging of it is by setting fire to a little of it; and, when it has burnt away all the inflammable part, examining the phlegm both by the taste and smell.

Rum is a considerable island, one of the Hebrides, or rather one continued rock, of nearly 30 miles in circumference. It is the property of Mr Maclean of Coll; contains 400 inhabitants; grazes cattle and sheep; pays above 200l. rent annually: but has neither kelp, freestone, nor lime.

RUMELIA, in *Geography*, the same with ancient Greece; now a part of Turkey in Europe.

RUMEN, the paunch, or first stomach of such animals as chew the cud; thence called *Ruminant Animals*. See Anatomy, Comparative.

RUMEX, Dock, a genus of plants belonging to the hexandria class, and in the natural method ranking under the 12th order, *Holoraceæ*. See Botany *Index*.

RUMINANT, in *Natural History*, is applied to an animal which chews over again what it has eaten before: which is popularly called *chewing the cud*. Peyer, in a treatise *De Ruminantibus et Ruminatione*, shows that there are some animals which really ruminate; as oxen, sheep, deer, goats, camels, hares, and squirrels: and that there are others which only appear to do so, as moles, crickets, bees, beetles, crabs, mullets, &c. The latter class, he observes, have their stomachs composed of muscular fibres, by which the food is ground up and down as in those which really ruminate. Mr Ray observes, that ruminants are all four-footed, hairy, and viviparous; some with hollow and perpetual horns, others with deciduous ones.

RUMP of the sacrifice. Moses had ordained, that the rump and fat of the sheep that were offered for a peace-offering should be put upon the fire of the altar, (Lev. iii. 9. vii. 3. viii. 25. ix. 19.). The rump was esteemed the most delicate part of the animal.

RUMPHIA, a genus of plants belonging to the triandria class, and in the natural method ranking with those of which the order is doubtful. See Botany *Index*.

RUNCIMAN, Alexander, an eminent Scottish painter, was born in Edinburgh in the year 1736. He was the son of an architect, a profession which has a strong affinity to that of painting. The opportunity he thus enjoyed of examining his father's drawings, gave him an early propensity to the art in general, which he very soon evinced by making sketches of any remarkable object, either of nature or art, that happened to come in his way. We are unacquainted with the gradual progress of his fertile genius; but it is not to be supposed that he long remained satisfied with the delineations of straight lines, while the fascinating beauties of landscape lay open to his inspection. Water that falls over a rugged precipice in the form of cascades, or the foaming surges of the deep when carried like hoar frost with impetuosity into the air, both astonish and delight by their awful grandeur. These objects, and such as these, would naturally fire the genius of Runciman at an early period.

He was bound an apprentice to John and Robert Norries in the year 1750; the former of whom was a landscape painter of very considerable eminence, and by his instructions our young artist made rapid progress. About the year 1755, when only 19 years of age, he began professionally to paint landscapes; from which it appeared that they were by no means first attempts, as they evinced

Runciman.

ced his ardent application to study before he ventured to appear at the tribunal of the public. Yet, although these were excellent, they were nothing more than the dawn of that distinguished eminence to which he afterwards attained. His reputation as a painter of landscape continued to increase during five years; but such was the strength of his genius, and the amazing fertility of his invention, that he could not rest satisfied with eminence in a single department. About the year 1760 he successfully attempted historical painting, in which his mind had more ample scope than in pourtraying the solemn silence of a field, a humble cottage, or a shepherd void of ambition. Six years of his life were devoted to the study and practice of this important branch of the art, notwithstanding his situation was attended with numerous disadvantages. Great, however, as his attainments were in this department, he never could be satisfied with himself, till he had studied in Italy those masterly performances which it was his highest ambition to imitate.

He accordingly set out for Italy in the year 1766, when just 30 years of age, and during a residence of five years in that enchanting country, where specimens of his favourite art are met with in all their grandeur and perfection, he continued to copy the best pictures of the ancient masters, in consequence of which his taste was very much corrected and improved. His conceptions were also greatly enlarged, by the steady contemplation of so many sublime works of the greatest and most celebrated artists. The art of composition, which it is of the first consequence for an historical painter to understand, was only to be acquired from the study of its principles, as these are exemplified in such highly finished models; and to these he applied himself with indefatigable industry. He caught the rich yet chaste colouring of the Venetian school with such truth, that he was allowed to surpass all his competitors in this valuable quality.

In the year 1771, Runciman returned to his native country, in the full possession of such improvements as were to be expected from the opportunities he enjoyed, and also with a judgment very much matured. It will readily be granted that he had now some claim upon the patronage of his country, and we are happy to add that this was not withheld; for the Honourable Board of Trustees, and Sir James Clerk of Pennycuick, were among his patrons; and to Mr Robert Alexander in particular, a respectable merchant in Edinburgh, his country was more indebted for the fostering of his rising genius, than to the whole of its nobility.

An academy for the study of drawing and painting was established in Edinburgh by the honourable trustees for the encouragement of arts in Scotland, of which De la Cour and Pavilon, two French artists, of some ability, were successively chosen masters. When Pavilon died in 1771, an application was made to Runciman to take charge of the academy, the laborious and interesting duties of which he discharged much to his own honour and the benefit of his country.

His masterly work in the Hall of Ossian at Pennycuick, the seat of his patron Sir James Clerk, was projected and begun by him soon after his return to Edinburgh. Of this performance, the following account was given by a very eminent judge.

"The fate of old Ossian seems to have been peculiarly happy. Upon the eve of being deserted by tradition, his only preserver, and even by the language itself, the genius of Macpherson, interposed, received the charge, and gave him to the world.

"Fortunate in a translator, the Celtic bard has been equally so, in receiving his fame from the taste and judgement of a critic, blest with every valuable quality and character.

"To complete the honours of the poet, nothing was wanting, but the attendance of the sister art. It was therefore with uncommon pleasure, that I heard his being adopted by a native artist, under the patronage of a gentleman, distinguished by a fine taste and warm regard to the arts. The work, which is now finished, is the only *original performance* ever executed in Scotland."

The next able performance of Runciman was the picture of the Ascension, painted on the ceiling above the altar of the Episcopal Chapel, Cowgate, Edinburgh.

The fire and feeling displayed in his King Lear, were conceived and executed in a manner not inferior to those of Shakespeare; and the Andromeda, from which Legat took his highly finished engraving, will bear a comparison, in respect of colouring, with the works of Titian or Corregio. He appears to have regarded his own historical work of Agrippina landing the ashes of Germanicus her husband, as a capital performance, in the execution of which he bestowed more than ordinary pains; and posterity will determine that his opinion was just, as the ingenious Mr Brown bestowed upon it the highest encomiums.

While his health permitted (which the painting the hall of Ossian had much impaired), he continued to superintend the business of the academy, and devoted his leisure hours to the drawing of historical pieces. He enjoyed a competency from his office as teacher, which with the emoluments arising from his other works, made him independent. He never formed any matrimonial connection, but he had a natural son called John, who was bred to the occupation of a silversmith, and went afterwards to reside in London.

Runciman as a man, was possessed of great candour and simplicity of manners, having a happy talent for conversation, which made some of the most distinguished literary characters, such as Hume, Robertson, Kaimes, and Monboddo, extremely fond of his company; but the genuine worth of this eminent man, and his real goodness of heart, were only fully known to his most intimate friends. He could communicate information with great facility, and gave his best advice to young artists, with a view to further the progress of their improvement.

As a painter, his character has been elegantly drawn by a brother artist, the accomplished Mr John Brown, who was better qualified than most men to make a proper estimate of his merits. We shall lay this sketch before our readers in his own words.

"Mr Runciman was an artist by nature, eminently qualified to excel in all those nobler parts of the art, the attainment of which depends on the possession of the highest powers of the mind.—Though for a long period of years labouring under every possible disadvantage, he completed works, which upon the whole, are equal to the best of those of his contemporaries, and in some respects, it may be boldly asserted that they are superior.—His fancy was fertile, his discernment of character keen,

Runciman || Rupert.

keen, his taste truly elegant, and his conceptions always great.—Though his genius seems to be best suited to the grand and serious, yet many of his works amply prove, that he could move with equal success in the less elevated line of the gay and pleasing. His chief excellence was composition, the noblest part of the art, in which it is doubted whether he had any living superior. With regard to the truth, the harmony, the richness, and the gravity of colouring; in that style, in short, which is the peculiar characteristic of the ancient Venetian, and the direct contrast to the modern English school, he was unrivalled. His works, it must be granted, like all those of the present times, were far from being perfect; but it was Mr Runciman's peculiar misfortune, that his defects were of such a nature, as to be obvious to the most unskilful."

The fine arts and his friends were deprived of this extraordinary painter, on October 21st 1785.

RUNDLET, or Runlet, a small vessel, containing an uncertain quantity of any liquor, from 3 to 20 gallons.

RUNGS, in a ship, the same with the floor or ground timbers; being the timbers which constitute her floor; and are bolted to the keel, whose ends are rung-heads.

Rung-Heads, in a ship, are made a little bending to direct the sweep or mold of the futtocks and navel-timbers; for here the lines begin which make the compass and bearing of the ship.

RUNIC, a term applied to the language and letters of the ancient Goths, Danes, and other northern nations. See Alphabet.

RUNNER, in the sea-language, a rope belonging to the garnet and the two bolt-tackles. It is received in a single block joined to the end of a pendant; it has at one end a hook to hitch into any thing; and, at the other, a double block, into which is reeved the fall of the tackle, or the garnet, by which means it purchases more than the tackle would without it.

RUNNING-thrush, a disease in the feet of horses. See Farriery *Index*.

RUNNET, or Rennet, is the concreted milk found in the stomachs of sucking quadrupeds, which as yet have received no other nourishment than their mother's milk. In ruminating animals, which have several stomachs, it is generally found in the last, though sometimes in the next to it. If the runnet is dried in the sun, and then kept close, it may be preserved in perfection for years. Not only the runnet itself, but also the stomach in which it is found, curdles milk without any previous preparation. But the common method is, to take the inner membrane of a calf's stomach, to clean it well, to salt and hang it up in brown paper: when this is used the salt is washed off, then it is macerated in a little water during the night, and in the morning the infusion is poured into the milk to curdle it. But see more particularly the article Cheese for a proper receipt to make runnet, upon which the quality of the cheese greatly depends.

RUPEE, a silver coin current in the East Indies, equal to about 2s. 6d. sterling.

RUPERT, or Robert. See Robert.

Rupert, prince palatine of the Rhine, &c. son of Frederic prince elector palatine of the Rhine and Elisabeth daughter of King James I. of England, was born in 1619. He gave proofs of his bravery at the age of 13; and in 1642 came over into England, and offered his service to King Charles I. his uncle, who gave him a command in his army. At Edgehill he charged with incredible bravery, and made a great slaughter of the parliamentarians. In 1643 he seized the town of Cirencester; obliged the governor of Litchfield to surrender; and having joined his brother Prince Maurice, reduced Bristol in three days, and passed to the relief of Newark. In 1644 he marched to relieve York, where he gave the parliamentarians battle, and entirely defeated their right wing; but Cromwell charged the marquis of Newcastle with such an irresistible force, that Prince Rupert was entirely defeated. After this the Prince put himself into Bristol, which surrendered to Fairfax after a gallant resistance. The king was so enraged at the loss of this city, so contrary to his expectation, that he recalled all Prince Rupert's commissions, and sent him a pass to go out of the kingdom. In 1648 he went to France, was highly complimented by that court, and kindly received by King Charles II. who sojourned there for the time. Afterward he was constituted admiral of the king's navy; attacked the Dutch ships, many of which he took; and having engaged with De Ruyter, obliged him to fly. He died in 1682, and was interred with great magnificence in King Henry VII.'s chapel, Westminster. Mr Grainger observes, that he possessed in a high degree that kind of courage which is better in an attack than a defence; and is less adapted to the land-service than that of the sea, where precipitate valour is in its element. He seldom engaged but he gained the advantage, which he generally lost by pursuing it too far. He was better qualified to storm a citadel, or even to mount a breach, than patiently to sustain a siege; and would have furnished an excellent hand to a general of a cooler head.

This prince is celebrated for the invention of prints in mezzotino, of which he is said to have taken the hint from a soldier's scraping his rusty fussil. The first print of this kind ever published was done by his highness, and may be seen in the first edition of Evelyn's Sculptra. The secret is said to have been soon after discovered by Sherwin an engraver, who made use of a loaded file for laying the ground. The prince, upon seeing one of his prints, suspected that his servant had lent him his tool, which was a channeled roller; but upon receiving full satisfaction to the contrary, he made him a present of it. The roller was afterwards laid aside; and an instrument with a crenelled edge, shaped like a shoemaker's cutting knife, was used instead of it. He also invented a metal called by his name, in which guns were cast; and contrived an excellent method of boring them, for which purpose a water-mill was erected at Hackney-marsh, to the great detriment of the undertaker, as the secret died with the illustrious inventor.

Rupert's Drops, a sort of glass-drops with long and slender tails, which burst to pieces on the breaking off those tails in any part; said to have been invented by Prince Rupert, and therefore called by his name. Concerning the cause of this surprising phenomenon scarcely any thing that bears the least appearance of probability has been offered. Their explosion, it is said, is attended

tended in the dark with a flash of light; and by being boiled in oil, the drops are deprived of their explosive quality.

RUPIN, or RAPIN, a town of Germany, in the marquisate of Brandenburg and capital of a duchy of the same name. It is divided into the Old and the New. The Old was nothing but an ancient castle, very well furnished, the late king of Prussia, before his father's death, residing there. New Rupin is seated on a lake, and become a considerable place of trade, with a manufactory of cloth. It is also noted for brewers. E. Long. 13. 23. N. Lat. 53. 0.

RUPPIA, a genus of plants, belonging to the tetrandria class; and in the natural method ranking under the 15th order, *Inundatæ*. See BOTANY *Index*.

RUSCUS, KNEE-HOLLY, or *Butcher's Broom;* a genus of plants, belonging to the diœcia class; and in the natural method ranking under the 11th order, *Sarmentaceæ*. See BOTANY *Index*.

The most remarkable species is the aculeatus, or common butcher's broom, common in the woods in many parts of England. It has roots composed of many thick fibres which twine about each other; from which arise several stiff green stalks about three feet high, sending out from their sides several short branches, garnished with stiff, oval, heart-shaped leaves, placed alternately on every part of the stalk, ending with sharp prickly points. The flowers are produced in the middle, on the upper side of the leaves; they are small, and cut into six parts; of a purple colour, sitting close to the midrib. They appear in June; and the female flowers are succeeded by berries as large as cherries, of a sweetish taste, which ripen in winter; when they are of a beautiful red colour. As this plant grows wild in most parts of England, it is rarely admitted into gardens; but if some of the roots be planted under tall trees in large plantations, they will spread into large clumps; and as they retain their leaves in winter, at that season they will have a good effect.

RUSH. See JUNCUS, BOTANY *Index*.

RUSHWORTH, JOHN, the compiler of some useful collections respecting the affairs of state, was born in Northumberland about the year 1607, and was descended of honourable ancestors. After attending the university of Oxford for some time, he removed to Lincoln's Inn; but the study of law not suiting his genius, he soon deserted it, in order to seek a situation where he might more easily gratify his love for political information. He frequently attended the meetings of parliament, and wrote down the speeches both of the king and members. During the space of 11 years, from 1630 to 1640, when no parliament was held, he was an attentive observer of the great transactions of state in the star-chamber, the court of honour, and exchequer chamber, when all the judges of England assembled there on cases of great emergency. Nor did he neglect to observe with a watchful eye those events which happened at a distance from the capital. He visited the camp at Berwick, was present at the battle of Newborn, at the treaty of Rippon, and at the great council of York.

In 1640 he was appointed assistant to Henry Elsynge clerk to the house of commons, and thus had the best opportunities of being acquainted with their debates and proceedings. The commons considered him as a person worthy of confidence. In particular, they trusted him with carrying their messages to the king while he remained at York. And when the parliament created Sir Thomas Fairfax their general, Rushworth was appointed his secretary, and discharged the office much to the advantage of his master. When Fairfax resigned his commission, his secretary returned to Lincoln's Inn, and was soon after (in 1651-2) chosen one of the committee that was appointed to deliberate concerning the propriety and means of altering or new modelling the common law. He was elected one of the representatives for Berwick-upon-Tweed to the parliament which Richard Cromwell assembled in 1658, and was re-elected by the same town to the parliament which restored Charles II. to the crown.

After the Restoration, he delivered to the king several books of the privy-council, which he had preserved in his own possession during the commotions which then agitated the country. Sir Orlando Bridgeman keeper of the great seal chose him his secretary in 1677, an office which he enjoyed as long as Sir Orlando kept the seals. In 1678 he was a third time chosen member for Berwick, and a fourth time in the ensuing parliament in 1679. He was also a member of the parliament which was convened at Oxford. The different offices he had held afforded him favourable opportunities of acquiring a fortune, or at least an independence; yet, whether from negligence or prodigality, he was never possessed of wealth. Having run himself into debt, he was arrested and committed to the King's Bench prison, Southwark, where he lingered for the last six years of his life in the most deplorable condition. His memory and judgment were much impaired, partly by age and partly by the too frequent use of spirituous liquors. He died on the 12th of May 1690.

His "Historical Collections of private Passages in State, weighty Matters in Law, remarkable Proceedings in Parliament," were published in folio at different times. The first part, comprehending the years between 1618 and 1629, appeared in 1659. The copy had been entrusted by Oliver Cromwell to Whitelock, with instructions to peruse and examine it. Upon perusing it he thought it necessary to make some alterations and additions. The second part was published in 1680; the third in 1692; the fourth and last, which comes down to the year 1648, was published in 1701; and altogether made seven volumes. These underwent a second edition in 1721; and the trial of the earl of Strafford was added, which made the eighth. This work has been much applauded by those who condemn the conduct of Charles I. and accused of partiality by those who favour the cause of that unhappy monarch. One person in particular, Dr John Nelson of Cambridge, in a Collection of the Affairs of State published by the command of Charles II. undertook to prove, "that Rushworth has concealed truth, endeavoured to vindicate the prevailing detractions of the late times, as well as their barbarous actions, and with a kind of rebound to libel the government at second-hand." This accusation seems to be carried too far. His principles indeed led him to show the king and his adherents in an unfavourable light, and to vindicate the proceedings of parliament; yet it cannot justly be affirmed that he has misrepresented or falsified any of the speeches or facts which he has admitted into his collection. Perhaps he may have omitted

Rushworth, Russia.

some papers merely because they were unfavourable to the party which he had espoused; and is therefore not to be considered as an impartial historian who relates the whole truth, but as an honest lawyer, who states all his facts fairly and candidly, but passes over such as are injurious to his client's cause.

Russelia, Russia.

RUSSELIA, a genus of plants belonging to the pentandria class. See BOTANY *Index*.

RUSSIA.

1 Situation and boundaries.

RUSSIA, the largest empire, and one of the most powerful states in the known world, is situated partly in Europe, partly in North America, but chiefly in Asia; where it occupies that immense tract of country which extends from the Uralian mountains and the Caspian on the west, to Bering's straits and the sea of Kamtschatka on the east, comprehending a great variety of tribes and nations, whose very names were, half a century ago, scarcely known to the west of Europe. This vast empire is bounded on the north by the *Arctic Ocean*; on the east by the *Northern Pacific* or *Eastern Ocean*; on the south by the extensive *Chinese* territories, the *Mogul empire*, the *Caspian sea*, and part of *Turkey*; and on the west by the *Austrian* dominions, the kingdoms of *Prussia* and *Sweden*, and the *Baltic*.

2 Extent.

If we examine the extent of the Russian empire, we shall find it stretching from the western part of the island of Ozel in the Baltic in 22° E. Long. from Greenwich, to the eastern promontory of the Tschutchki territory in 172° E. from the same meridian; thus including 150° of longitude; while, from its most northern promontory in N. Lat. 78°, to the most southern point of 39° N. it comprehends 39° of latitude. Mr Tooke, computing its extent in British miles, estimates it at 9200 in length, and 2400 in breadth. Its absolute superficial measure in square miles can scarcely be ascertained. That of the European part with the late addition of Finland is estimated at 1,640,000 square English miles, exclusive of the new kingdom of Poland; and the Asiatic part alone is so extensive as to exceed the whole of Europe.

3 Divisions.

The whole Russian empire is, by the natural boundary of the Uralian mountains, divided into European and Asiatic Russia; the former comprehending Russia Proper, Russian Lapland, Finland, Courland, Livonia, Russian Poland, the Taurican Chersonesus or Crim Tartary, and the country of the Kozaks, bordering on the sea of Azof; the latter including the country of the Samoeids, the vast district of Siberia, the country of the Tschutchki, the country of the Mongul Tartars, and some other districts that will be noticed hereafter. The whole empire was, by Catharine II. divided into governments, denominated in general from the names of their capital cities. Of these governments, by far the greater number belong to European Russia, the vast tract of the Asiatic part having been divided into only two governments, viz. that of Tobolsk to the west, and Irkutsk to the east.

In enumerating the governments of European Russia, we shall begin with the north, where lies the extensive government of Archangel, stretching from the confines of Sweden along the shores of the White sea and the Arctic ocean, to the Uralian chain. To the south of this, along the Asiatic frontier, as far as the sea of Azof, are situated the governments of Vologda, Perm, Vyatka, Kazan, Simbirsk, Saratof, and the territory of the Don Kozaks. To the west of these last, along the sea of Azof and the Black sea, lies the government of Catharinoslaf, including Taurida and the Crimea. On the western side of the empire extend the acquisitions derived from the partition of Poland; and along the eastern shores of the Baltic lie the governments of Riga, Revel, St Petersburgh, Viborg, Kymenegard, Tavasthus, Abo, Kuopia Wasa, Uleabourg and Olonetz. The remaining governments which occupy the centre, are those of Novgorod, Tver, Kostroma and Yaroslavl, that lie chiefly to the north and east of the Volga; and those of Polotsk, Pskov, Smolensk, Moskva, Vladimir, Nizney-Novgorod, Moghilef, Kaluga, Toula, Reazan, Tambof, Penza, Orel, Sieverskof, Tchernigof, Koursk, Kief, Kharkof, and Voronetz, lying principally to the west of the Volga (A).

In the account which we are here to give of this extensive empire, which has of late made so conspicuous a figure among the states of Europe, we shall first consider what may be called the permanent features of the empire, as the face of the country, the soil, the mountains, rivers, lakes, and forests, the climate and seasons, and the most important natural productions; we shall then trace its origin and progress in the history of its transactions, from which we shall deduce its progressive geography; and we shall conclude with describing the more fluctuating circumstances, which constitute its political and civil geography.

4 Face of the country.

In a tract of country so immense, which is calculated to include a seventh part of the known continent, and nearly a twenty-sixth part of the whole globe, its surface must present a great variety of appearances: but these are much more remarkable in Asiatic than in European Russia. The latter is distinguished chiefly by extensive plains, called *steppes*, that rival the deserts of Asia and Africa, presenting to the eye little more than a vast expanse of level sand, with very little appearance of vegetation. The chief situation of these steppes is towards the south, especially in the neighbourhood of the sea of Azof, where they extend in length above 400 British miles. In this part of the empire there are but few considerable elevations, and no mountains of importance, except on the eastern frontier, and towards the south, between the Don and the Volga. The whole country is well watered with rivers, and contains numerous

(A) In our orthography of the names of persons and places we have followed Mr Tooke, who has explained the principles of Russian orthography, in his *History of Russia*, vol. i. p. 130.

RUSSIA in EUROPE.
English Miles
Longitude East 40 from Greenwich
Published by A. Constable & Co. Edinburgh 1824
Engraved by Sol. Hall
SWEDEN
NORWAY
BALTIC SEA
WHITE SEA
BLACK SEA
SEA OF AZOV
CASPIAN SEA
Kola
Tornea
Kajana
Kuopio
Tavastehus
Viborg
Lake Ladoga
Petrozavodsk
Onega
Archangel
Kiga
Riga
Pskov
Novgorod
Tver
Jaroslav
Kostroma
Vologda
Volga
Iver
Vladimir
Moscow
Nizney Novgorod
Kazane
Vitebsk
Wilna
Minsk
Mohilev
Grodno
Smolensk
Kaluga
Riazane
Toola
Orel
Kursk
Voronez
Penza
Tambov
Saratov
Simbirsk
Tchernigov
Kiev
Jitomir
Kharkov
Poltava
Ekaterinoslav
Tchernigov
Tchernigov
Cherson
Simferopol
Astrakhan
Tchernigov
Tchernigov
Tchernigov

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ous large and populous towns. In the north and east of Asiatic Russia, we see little more than extensive marshy plains, covered with almost perpetual snow, and crossed by broad rivers, which take their course to the Arctic ocean. In this part, and even towards the centre of Siberia, vegetation is so much checked by the severe cold, that few trees are to be seen; but towards the south there are vast forests of pine, fir, larch, and trees of a similar nature. In some parts of this division of the empire, especially about lake Baikal the scenery is beautiful and picturesque. Here, too, the country abounds in steppes, which are still more extensive than those of the European part.

As these steppes are among the most striking peculiarities of the Russian empire, it may be proper to consider them rather minutely. These steppes resemble, in many respects, the sandy deserts of Africa; but though their soil is composed of the same materials, they are not so barren of vegetation, exhibiting here and there scattered patches of thin grass, and at distant intervals, small stunted thickets. In general they are destitute of wood, though in a few places we find small forests of birch trees. They abound with salt lakes, but streams of fresh water are uncommon. The most remarkable steppes are, as we have said, those of Asiatic Russia, and of these there are four that merit particular notice. One of these extends between the rivers Volga and Ural, and was formerly called the KALMUK steppe. On the north it skirts the floetz mountains that proceed from the Uralian chain, while to the south it borders on the Caspian. This sandy plain contains a few districts that are well adapted to the purposes of agriculture, but in general it is destitute of wood and fresh water. It abounds in salt lakes, and is very thinly inhabited. The second great steppe is that which extends between the Tobol and the Irtysh, and between this latter river and the Alay and the Oby, as far as the influx of the Irtysh into the Oby. This comprehends a most extensive territory, containing numerous forests of birch, pines, and firs, interspersed with salt lakes, and in most places well calculated for pasturage and agriculture. The greater part of this steppe lies in the government of Tobolsk. A third comprehends that large tract that lies beyond the river Tshulim, between the Oby and the Yenissy, as far as the shores of the Arctic ocean. In this steppe there is much wood, especially towards the south, where there are considerable forests. Eastward from this, between the Yenissy, the Tunguska, and the Lena, lies a fourth desert, resembling the last in its appearance, and the nature of its soil, but containing less wood. A great part of this steppe lies in the government of Irkutsk.

The mountains in Asiatic Russia are indeed more numerous, but are not remarkable for their height. The rivers are large and majestic, and are navigable for a considerable extent.

5 Soil.

The soil is of course extremely various. That of the northern parts is marshy, and little susceptible of cultivation, but the south abounds in rich and fertile plains. The most fertile part of European Russia is that between the Don and the Volga, from the government of Voronetsk to that of Simbirsk. Here the soil consists of a black mould, strongly impregnated with nitre, and is so rich, that the fields are never manured. The harvests are abundant, and the natural pastures render the sowing of artificial grasses unnecessary. Most parts of Siberia are totally incapable of agriculture and improvement.

6 Mountains.

We have already remarked that Russia is rather a flat than a mountainous country, and this character is particularly applicable to the European part. The most elevated region of this division lies in the road between St Petersburgh and Mosco, and is commonly called the mountain of Volday, though denominated by the natives Vhisokaya Plostchade, or the elevated ground. This mountain is flat at the top, is surrounded with large sand hills, interspersed with granite rocks, and has in its vicinity several lakes and groves. In this mountain are the sources of the rivers Duna, Volga, and Dniepr.

To the south-west, bounding the steppe of the Dniepr, lie the mountains of Taurida, which are rather romantic from their adjacent scenery, than remarkable for their height. Between them and the shores of the Black sea lie beautiful valleys, abounding with olives, figs, and pomegranates, while the steepest cliffs of the mountain are adorned with the red bark and evergreen foliage of the *arbutus*. These valleys are very productive in vineyards, and feed numerous flocks of sheep and goats.

The largest mountainous tract of European Russia is that of Olonetz, that lies between the Swedish frontiers and the White sea. This chain occupies a space of nearly 15°, or above 1000 British miles, running almost due north. This chain is of no great height, but its northern part is covered with perpetual snow. These mountains are very rich in mineral products, which will be noticed hereafter.

The Uralian mountains, that separate European from Asiatic Russia, have been sufficiently described in the article GEOLOGY, N° 131, 135.

The mountains of Asiatic Russia are more numerous and more important. They include the Altaic chain, the mountains of Savansk, of Yablonnoy, and Stanovoy, forming the southern boundary between the Russian and Chinese empires, and the classical range of Caucasus, extending between the Caspian and the Black sea. Of these, the Altaic chain has also been sufficiently described under GEOLOGY, N° 132; and as the other mountains to the south and east may be considered as a continuation of the same chain, they need not occupy our attention in the present article.

The ridge of Mount Caucasus divides Russia from Turkey to the west, and from Persia to the east, and extends between the Euxine and the Caspian for about 400 British miles. It is not of any considerable breadth, being in no part more than 20 or 30 miles across, and in some places not more than five or six. Its height is considerable, and its summits are covered with eternal ice and snow. The valleys at its foot abound in forest trees; and the bowels of the mountain contain veins of silver, lead and copper.

7 Volcanoes.

Among the mountains of the Russian empire we must not omit the volcanoes of Kamtschatka. The whole of this peninsula is divided lengthwise by a chain of lofty, rocky mountains, commonly covered with snow, and shooting into conical summits that very frequently emit smoke, and sometimes burst out into flame. We do not find, however, that they pour out lava, or water, like the European volcanoes. Many of them appear to be extinct.

Russia.

extinct, but their former volcanic state is evinced by the appearance of craters at their summits. In the neighbourhood of these volcanoes there are hot springs, not inferior in temperature to those of Iceland, and like them throwing up jets of water with a great noise, but to an inconsiderable height.

8 Seas.

The seas that are connected with Russia are the Arctic ocean, and that part of the Pacific which has been called the eastern Archipelago, forming its northern and eastern boundaries; the inland seas of the Baltic, the Black sea, the sea of Azof, the Caspian, the sea of Aral, and the sea of Okhotsk. Some account of these, except the sea of Okhotsk, will be found under their respective articles in this work.

The sea of Okhotsk may be considered as a large gulf lying between the peninsula of Kamtschatka to the east, and the country of the Tungousi to the west. Its entrance from the Pacific ocean is closed by a chain of small islands, called the Kourilskie islands, and within these are the two large islands of Ezzo and Sackhalin. Its principal port is Okhotsk, at the mouth of the small river Okhota, and to the north-east it has a considerable branch called the sea of Pengina.

9 Bays and gulfs.

The shores of Russia are hollowed out into numerous indentations, forming several important bays and gulfs. The most remarkable of these are, the gulf of Finland in the Baltic, that of Archangel in the White sea, the bays of Oby and of Enissy in the Arctic ocean; the bay of Anadhir in the eastern Archipelago; the large gulf of the sea of Okhotsk, called the sea of Pengina, and the harbour of St Peter and St Paul in the southern extremity of Kamtschatka.

10 Rivers.

This extensive empire is watered by numerous and important rivers, which traverse it in every direction. These we shall class, not according to the divisions of the empire through which they pass, but according to the seas or oceans into which they flow.

The rivers which flow into the Baltic are, the Duna and the Neva. Those which fall into the White sea are the Onega and the Dvina to the west, and the Keiloi and the Mesan to the east. Into the Arctic ocean flow the Cara, the Petshora or Bolshaia Petshora, the Oby, which receives the Irtysh; the Tobol, the Yenissy, the Khatanga, the Lena, the Yana, the Indighirka, and the Kolyma. Those which flow into the eastern Pacific are, the Anadhir and the Kamtschatka. Into the Caspian sea fall the Yemba or Emba, the Ural or Yaik, the Volga, receiving the Kamma, and the Okha and the Terek. Lastly, there flow into the Black sea, the Khuban, the Don, the Dniepr or Nieper, the Bog or Bogue, and the Dniestr or Niester. Of these rivers we have already given an account of the Don, the Dvina, the Irtysh, the Lena, the Nieper, the Niester, the Oby, and the Onega, under their respective titles, and an account of the Volga will be found under that head. We shall here add a brief view of the remaining rivers.

The Duna, sometimes called the western Dvina, rises between the provinces of Pskov and Smolensk, and takes a north-westerly course for about 500 miles, till it falls into the Baltic at Riga. This river has some considerable and dangerous falls; and when the ice breaks up on the approach of warm weather, vast quantities of it are hurried down the stream, so as frequently to do much injury to the port of Riga.

Of those rivers which flow into the Arctic ocean, the Cara is one of the most inconsiderable, were it not that it completes the boundary between Europe and Asia to the north. It runs from the Uralian mountains to the sea of Karskoye, a distance of about 140 miles.

The Petshora rises in the Uralian mountains, in the government of Vologda, runs across the government of Archangel, and falls into the Arctic ocean at Poostozertsk, after a course of about 450 miles.

The Tobol rises in the chain of mountains, that separate the government of Ufa from the country of the Kirghistzi, and empties itself into the Irtysh at Tobolsk, after receiving numerous tributary streams.

The Yenissy or Enyssi, is formed by the junction of two rivers, viz. the Kamsara and the Veikem or Baykema, which belong to China. It first enters the Russian dominions, where alone it has the name of Yenissy, at the mouth of the Bon-Kemtshyng, and after running northward, and forming a bay containing several islands, it falls into the Arctic ocean about 2° eastward of the mouth of the Oby.

The Khatanga rises from a lake in the government of Tobolsk, and falls into a large bay of the Frozen ocean, called Khatanskaia Guba. Its course is through a low and very marshy country.

The Yana rises from a little lake in about 64° N. Lat. and after making some small turns, runs northward to the Arctic ocean, forming five considerable arms that empty themselves into a capacious bay.

The Indighirka rises near the source of the Yana, but on the other side of the mountains. At its efflux into the Arctic ocean after a course of 1200 versts (B), it forms four great arms.

The Anadhir rises in the country of the Tschutchki. Its bed is sandy, its channel very broad, and its current slow. It is so shallow that it can scarcely be crossed by the common ferry boats of the country, though these draw no more than two feet of water. It takes its course through a flat country, which on the north side of the river is destitute of wood, but overgrown with moss, affording pasture to innumerable herds of rein deer; but on the south well wooded and abounding with verdure. It falls into a considerable bay a little south of the tropic of Cancer, called the bay of Anadhir.

The Kamtschatka takes a short course from south to north, along the peninsula of that name, till, not far from its mouth, it turns to the south-east, and falls into a bay nearly opposite to Bhering's island.

The Amoor was formerly reckoned among the rivers of Russia, but was lately ceded entirely to China.

Of the rivers that fall into the Caspian sea we have to notice the Yemba, the Ural, and the Terek. The first of these rises in the most southern part of the Uralian chain, and is the most eastern of all the rivers that fall into the Caspian. It forms part of the boundary between the country of the Kirghishes and the Usinskoy government. The Ural or Yaik is a river of considerable

(B) A Russian verst is about two thirds of an English mile, or about 1174 yards.

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able importance. It rises in the Uralian mountains, in the government of Ufa, and after passing by Orenburg, and receiving several streams, it flows into the Caspian at Gourief. Its name is said to have been changed from Yaik to Ural, on account of a dangerous insurrection of the tribes that inhabited its banks. The Terek originates in Mount Caucasus, on the highest ridges that form the frontiers of Georgia. Its course is rapid, and in the autumn the melted snows rush down from the mountains in such torrents into the plain beneath, as to swell this river eight or ten feet above its usual level, so that it overflows the adjacent country, and not unfrequently shifts its bed. It falls into the Caspian at Kizliar, after forming two branches, with a considerable island between them.

The Kuban and the Bogue are the only important rivers of those which flow into the Black sea, that have not been noticed in their places in the general alphabet of this work. Of these the Kuban, anciently denominated Hypanis, rises at the foot of Mount Caucasus, and is formed chiefly by the confluence of several tributary streams. It takes a direction nearly westward, running along the parallel of 45° N. Lat. and falls into the Black sea, opposite the isle of Taman, in the straits of Kafa. Its stream is smooth and gentle, not obstructed by waterfalls, and, though not deep, is well adapted to purposes of inland navigation. Its banks are fertile, and near its source are considerable forests.

The Bogue rises in Poland, and formerly constituted part of the boundary between that kingdom and the Russian empire, as at present towards its mouth it forms part of the frontier between Russia and Turkey. It falls into the Black sea at Otchakof.

11 Lakes.

The Russian empire, considering its size, does not abound in lakes. These are proportionally most numerous in European Russia, where we find the lake of Imandra in Russian Lapland; those of Ladoga, Onega, and Peipus, in the neighbourhood of St Petersburgh; Bielo-Ozero, or the White lake, in the government of Novgorod; and those which give rise to the river Volga, the principal of which is Seliger, in the government of Tver.

The Asiatic lakes are not numerous; but one of them, the lake or sea of Baikal, is highly important from its magnitude, and from the commercial intercourse which it promotes between the adjacent provinces. The other lakes of this part of Russia are these of Altyn-Noor, or the Golden lake, and of Altyn or Telitzko.

Most of these lakes have been already noticed under their proper heads in the general alphabet; but as the account there given, excepting that of Baikal, differs in some respects from the description of them by the latest geographers, we shall here add the account of the Russian lakes given by Mr Tooke.

12 Ladoga.

The lake of Ladoga is situated in the government of Vyborg, between the gulf of Finland and the lake of Onega, which in ancient times is said to have been denominated Nebo. It is reckoned one of the largest lakes in Europe, the length of it being about 175, and its breadth 105 versts. It produces a vast number of seals. On account of the perilous storms to which it is liable, and the several sand banks that are ever shifting their position, Peter the Great caused the famous Ladoga canal to be dug along its shore, from the Volkhof into the Neva, which canal is 104 versts long, 10 sajénes* broad, 1½ sajéne deep, and has 25 sluices. By the Neva the Ladoga is connected with the Baltic; by the Svir with the Onega; and by the Volkhof with the Ilmen. Into the canal flow the rivers Lipke, Nasia, Sheldika, Lava, and Kabona; into the lake, the rivers Pasha, Siæs, Olæt, &c. whereas the Neva alone runs out of it. Both shores of the lake belong to Russia, and these have everywhere a flat coast and a sandy beach. On this shore it has also a few low fishery islands, and a sandy bottom. That part of the northern side which lies in the government of Olonetz has marble on its coast, whence some of those beautiful and durable kinds of Finnish marble are brought to St Petersburgh. As the bed of this lake, for a great extent, is in the lowest part of the country, it receives, besides the above-mentioned rivers, the waters that come from the alum hills; all of which have no other outlet than the Neva.

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* A *sajene* is about 7 feet English.

13 Onega.

The lake Onega is situated in the government of Olonetz, between the Ladoga and the White sea. Its length is between 180 and 200 versts, and its breadth from 60 to 80. Like the Ladoga, it contains a few islands consisting of marble, and in all other properties is much the same. With other rivers, the Vitegra falls into it on the south-east side, which river takes its rise not far from the Kofsha, and this river falls into the Bielo-ozero. On the Kofsha is the old Ladoga, and on the Vitegra, the old Vitegorskaia, which are only about 40 versts asunder. Now, as from the Onega the navigable river Svir runs into the Ladoga, and from the Bielo-ozero the Sheksna flows into the Volga, there needs only a canal to be cut the said distance of 40 versts, for connecting the Neva with the Volga, which would be much more convenient for the navigation here than the passage by Vishnoi-Volotshok, because there are no waterfalls, and therefore all the danger and trouble attending them in the present passage would be obviated.

14 Peipus.

The lake Peipus, called by the Russians Tshudskoe-ozero, lies between the governments of Pscove, Reval, Riga, and St Petersburgh; is in length about 80 and in breadth about 60 versts. It is connected with the Pscove lake by a very broad channel, about 50 versts in length. From this lake proceeds the river Narova, communicating through the Embach with the Vertzerb, and from this latter runs the Fellin to the gulf of Riga, so that an inland navigation might easily be formed between lake Peipus and the Baltic, though at present the commodities conveyed along the Narova to Narva, must be carried a considerable way by land, owing to the numerous falls in that river. In this lake there are a few small islands, one of which has three villages upon it, and is well furnished with wood.

15 Bielo-ozero.

The Bielo-ozero, or White lake, is in the same government with the foregoing; is about 50 versts long and 30 broad, and receives into it several smaller streams. The only one that flows out of it is the Sheksna, which falls into the Volga. The water of this lake is clear, having a bottom partly clay and partly stony. The clay is generally of a white colour, and in stormy weather causes a strong white foam upon the surface of the water. It is doubtless from this circumstance that the lake first obtained the name Bielo, or white. It abounds with fish and crabs.

16 Tshany.

The lake Tshany is situated partly in the government of

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of Tobolsk, and partly in that of Kolhyvan. It communicates with the lakes Molski and Abishkan, is of very considerable circuit, and abounds in fish.

17 Ilmen.

The Lake Ilmen, formerly Moisk, lies in the government of Novgorod, being about 40 versts long and 30 broad. It receives the rivers Mista, Lovat, Skelton, &c. and gives birth to the Volkhof alone.

18 Altyn-Noor.

The Altyn-Noor, or Teletzkoe ozero, lies in the government of Kolhyvan, on a very considerable elevation of the Altai mountains, by which it is also entirely surrounded. Its length is computed at 126, and its greatest breadth at 84 versts. From this lake arises the famous river By, which, at its junction with the Katunia, takes the name of Oby.

19 Forests.

European Russia abounds in wood; and numerous extensive forests are seen in various districts, especially between St Petersburgh and Mosco, and between Vladimir and Arzonas. It is supposed that the Riphæan forest, so celebrated in antiquity, occupied the southern part of European Russia, where now extends a plain covered with a thick and fertile coat of black mould. The forests in some part of Asiatic Russia are also immensely large, especially towards the south. On the west of the government of Irkutsk, an enormous, dark, and marshy forest of resinous trees, extends to the river Kan; but the northern and eastern parts of Siberia are bare of wood.

20 Climate and Seasons.

When we consider that the Russian empire occupies an extent from north to south of nearly 40°, we may rationally conclude that the climate and seasons of so vast a tract must be extremely diversified. Accordingly we find that while the northern regions are exposed to almost perpetual frosts, some of the southern districts enjoy the purest atmosphere and the mildest sky. While the former is doomed to the utmost sterility, the latter is so fertile as to produce in the most lavish abundance all the vegetable riches of the most favoured climates.

One of the latest writers on the climate of Russia, M. Hermann, has divided the empire into four regions, which are thus distinguished.

1. The very cold region, extending from 78° to 60° of north latitude. This region comprehends the governments of Vyborg, Onoetz, Archangel, Tobolsk, the greater part of Irkutsk, Vologda, a part of Perme, Novgorod and St Petersburgh.

2. The cold region, extending from 60° to 55°, and including the governments of Reval, Riga, Polotsk, Pscov, Tver, Mosco, Yaroslavl, Vladimir, Kostroma, Viætka, the greater part of Perme and Kazan, a part of Irkutsk, Kolhyvan, Ufa, Simbirsk, Nishney-Novgorod, Kaluga, and Smolensk.

3. The moderate region, extending from 55° to 50°, including the governments of Moghilef, Tchernigof, Orel, Kursk, Tula, Tambof, Penza, the greater part of Kief, Kharkof, Voronetsk, Riazan, Saratof, Kaluga, Sinbirsk, Ufa, Kolhyvan, and a part of Irkutsk, Kazan, Nishney-Novgorod and Smolensk.

4. The hot region, extending from 50° to the most southern part of Russia, including Taurida, Ekatarinoslaf, the greater part of Caucasia, and a part of Kief, Kharkof, Voronetsk Saratof, Ufa, Kolhyvan, and Irkutsk.

From the above enumeration we find that one of the Russian governments possesses all the varieties of climate and season, and that many of them are so divided as to enjoy the advantages of two climates. We shall describe the nature of the climate and changes of the season, as they occur in each of these divisions, confining ourselves chiefly to the extremes of St Petersburgh and Taurida, as being most interesting.

In many districts of the first region there is scarcely any summer; for the three or four months in which it does not snow, scarcely deserve that name. As in most parts of the globe, however, the eastern districts of this region are much colder and more barren than those on the western side; the fruits that come to maturity round St Petersburgh and in the government of Vyborg, are not found under the same latitude in Siberia. Even the weather of St Petersburgh, however, is sufficiently rude, and the climate here is unsettled and unfriendly. In the winter of 1798 and 1799, the coldest ever known in that country, the mercury in Fahrenheit's thermometer stood at St Petersburgh at 39° below 0, and even at Mosco, the same thermometer fluctuated during 35 successive days between —30° and —40°. The spring in this region (i. e. about St Petersburgh), has in general much frost, snow, and rain; but the short summer is for the most part fair and fine. The longest day is here about 18½ hours, and the evening twilights are so uncommonly luminous, as readily to enable persons to read and write. The very sultry days are in general but few, and these are amply compensated by the cool evenings, nights and mornings. The autumn has seldom many bright days, but is for the most part cloudy, wet, and boisterous. The winter is always severe; and as the atmosphere is generally dry, even in snowy weather, this season is so healthy, that the smallest number of deaths is found to happen during winter. The shortest day is only five hours and a half, and though considerable light is reflected from the snow, yet when the atmosphere is cloudy, candles can be dispensed with but for a very short time. During this season the river Neva, the lakes in the vicinity of St Petersburgh, and even the gulf of Finland, as far as the islands of the Baltic, are covered with ice nearly a yard in thickness. On an average, there are annually from 150 to 190 days of frost, during which the ground is frozen to the depth of nearly three feet.

This severity of climate, apparently so inimical to health and comfort, is considered by the inhabitants as one of their greatest blessings. By the extent of ice and snow, distances are shortened, or at least travelling is facilitated, so that people, horses, and carriages with the heaviest burdens, cross the Neva, and the other rivers, lakes, and canals, in all directions. Ice cellars here form a necessary of life, for by their means provisions of all kinds are preserved during summer. Hence every house is provided with one of them; and in the beginning of February they are filled with large blocks cut from the river. The ice also promotes the amusements of the inhabitants, as we shall shew in the sequel of this article. Indeed, so essential is this severity of season to the comfort of the inhabitants, that when the winter is unusually mild, the roads are nearly impassable, and the provisions, which are always preserved in a frozen state, can scarcely be kept from putrefaction.

In this region the aurora borealis is very frequent, and its coruscations peculiarly vivid; storms of thunder and

and lightning are neither numerous, violent, nor lasting; high winds are not predominant, and it seldom hails, though hoar-frosts are very common.

In the second region the summer is indeed short in many parts; but in most of them it is so warm, and the days are so long, that the fruits of the earth usually come to maturity in a shorter time than in other places. The winter in this region, especially in the governments of Irkutsk, Perme, Viætka, &c. is in general very severe.

In the third region the winter is also long and cold, especially in the governments of Irkutsk, Kolhyvan, and Ufa. This, however, is owing rather to the lofty mountains with which these districts abound, than from their high degree of latitude. The governments belonging to this region in European Russia, however, usually enjoy a short and mild winter, and a fine warm summer.

In the fourth region the winters are short, and, except in some parts of Irkutsk and Kolhyvan, not very cold; and the summer is warm, and in many parts very dry. One of the most delightful districts in this region is that of Taurida, of which M. Pallas has given the following animated description.

"One of the mildest and most fertile regions of the empire is the beautiful semicircular and amphitheatral vale formed by the Tauridan mountains along the shores of the Euxine. These valleys, which are blessed with the climate of Anatolia and the lesser Asia, where the winter is scarcely sensible, where the primroses and spring-saffron bloom in February and often in January, and where the oak frequently retains its foliage through the whole winter, are, in regard to botany and rural economy, the noblest tract in Taurida, and perhaps in the whole extent of the empire. Here, on all sides, thrive and flourish in open air the ever-verdant laurel, the olive tree. the fig, the lotus, the pomegranate, and the celtis, which perhaps are the remains of Grecian cultivation; with the manna-bearing ash, the turpentine tree, the tan-bark tree, the strawberry tree from Asia Minor, and many others. This last particularly covers the steepest cliffs of the shore, and beautifies them in winter by its perpetual foliage, and the red rind of its thick stem. In these happy vales the forests consist of fruit trees of every kind, or rather they form only a large orchard left entirely to itself. On the shores of the sea the caper-bushes propagate themselves spontaneously; without the assistance of art the wild or planted vine stems climb the loftiest trees, and, twining with the flowery five-leaved ivy, form festoons and hedges. The contrasts of the orchards, and the rich verdure, with the beautiful wildness presented by the adjacent mountains and rocks, which in some places rise among the clouds, and in others are fallen in ruins; the natural fountains and cascades that agreeably present their rushing waters; lastly, the near view of the sea, where the sight is lost in the unbounded prospect; all these beauties together form so picturesque and delightful a whole, that even the enraptured muse of the poet or the painter would be unable to conceive a more captivating scene.

"In these enchanting valleys, to the benefit of the empire, which nowhere possesses so fine a climate, might the useful products of Asia Minor, and of the southern parts of Europe, be made indigenous. The superior kinds of fruits may be produced here without trouble, and are for the most part so already. The best kinds of olive and fig trees may be cultivated here; and even the sesamum plant never decays. Orange, lemon, and citron trees, and particularly the cedrat, the most excellent species of them, would bear the winter extremely well with a little care. The vine would be constantly improving, if a judicious selection were but made of the stocks for planting, if greater attention were paid to the various effects of the soil and situation of the vineyards, and if more care were taken in working the must and keeping the wine. For the use of the apothecaries and manufacturers a number of excellent drugs and dyes might be produced, which are at present brought from the isles of the Archipelago, from Greece, from Asia Minor, and Persia; several of them are now seen here growing wild. Likewise many hard and useful kinds of wood, especially coloured, fit for inlaid work, might here be propagated; perhaps in some tracts even the sugar cane would thrive *."

* *Tooke's View of the Russian Empire*, vol. i. p. 30.

The productions of Russia would afford an ample field for the investigation of the naturalist; and this part of its natural history has been fully illustrated by the enlightened travellers who were lately employed in the examination of the empire. We can here give only a brief sketch of the result of their inquiries.

21 Animals.

In the central parts of European Russia are found most of the animals which are common to it with the rest of Europe. The finest horses here are those of Lithuania and Livonia, the former possessing great strength, the latter excelling in speed. The spirit and beauty of the Tartarian horses have been long celebrated; and in the Taurida, where this breed is much cultivated, these qualities have been improved by the introduction of Turkish and Arabian stallions. Near Archangel, the horses are small, and resemble those in the north of Britain. The country near Archangel is remarkable for fine pasturage, and an excellent breed of cattle; but indeed cattle abound in most parts of the empire. The sheep in the northern provinces are of a middle size, with short tails and coarse wool; but those in the south are long-tailed, and their wool is of a superior texture: but the best wool is procured from the district of Kazan. We have seen that the province of Taurida abounds in sheep, which constitute the chief riches of the inhabitants. Some opulent farmers in this district possess 50,000 sheep; and 1000 is by no means an uncommon flock. Goats and swine also abound throughout European Russia; and the rein-deer is not unknown in the most northern governments. In the north, too, are found the elk, the wolf, the lynx, and the sea bear; and in the most southern districts the camel is sometimes met with.

Asiatic Russia is remarkable for the rein-deer, which there performs the office of the horse, the cow, and the sheep. In the south are found the wild horse, and the wild ass; while the argali, or wild sheep, is often hunted in Siberia, and the regions of Mount Caucasus present the furious *bison*. Here, too, are seen the ibex, and the chamois. Near Lake Baikal are found the stag, the musk animal, and the wild boar; and on the banks of the Yenissy is seen the beaver. Walruses haunt the shores of the Arctic ocean, and seals are found in most of its bays and inlets. In Siberia, in the provinces of Yakutsk and Nerschinsk, and in Kamtschatka,

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schatka, the hunting of sables forms, during part of the year, the chief occupation of the inhabitants; and their skins, when procured perfectly entire, are said to be worth L.10 each. The skins of the black fox are also highly esteemed, as, according to Mr Tooke, one of them is sometimes sufficient to pay the tribute of a village. The bear is found in the neighbourhood of the Uralian mountains, and the civet cat in the Altai chain. The wild boar grows here to such a size, that its tusks are said sometimes to weigh 600 pounds *. The horses of the Mongul Tartars are of singular beauty, some of them being striped like the tiger, others spotted like the leopard. The stud of a noble Mongul sometimes contains 3000 or 4000 of these animals. The principal Nomadic hordes of Asiatic Russia, viz. the Tartars, Monguls, and Mandshurs, not unfrequently regale on horse-flesh; but they do not, as is commonly reported, eat it raw. The cattle of this division of Russia are of a middling size, and are commonly employed for draught, and even sometimes for carriage.

* *Pinkerton's Geography*, vol. ii. p. 15.

The whole empire abounds with wild fowl and game of all sorts; and in the more solitary regions of Mount Caucasus, and on the Uralian and Altaian chains, there are numerous birds of prey. The external parts and provinces of the empire are well supplied with sea fish from the northern ocean, the Baltic, the White sea, the Black sea and the Caspian; and the numerous lakes and rivers yield immense quantities of salmon, trout, pike, sturgeon, and belluga (a large fish from whose roe is made the best caviare). Innumerable swarms of insects are hatched by the summer's heat in the sands, morasses, and forests; and are said to be so troublesome as to render great part of these regions almost uninhabitable.

22 Vegetables.

Merely to enumerate the chief vegetable productions of the Russian empire, would far exceed the limits of our plan. We shall therefore only mention the most important. In the forests are found the fir, the Scotch pine, the larch, the elm, the birch, the alder, the greater maple, the sycamore, the oak of various species, the black and white poplar, the ash, the hornbeam, the beech, the nettle-tree, the cedar, and the cypress. Of fruit trees and shrubs, the most remarkable are, the almond, the peach, the apricot, the medlar, the walnut, the mulberry, the olive, the fig, the vine, and the pomegranate. In some parts of Asiatic Russia, are found, besides, the quince, the date, the jujube, and the willow-leaved pear; and many other shrubs and plants, which in our climate require the aid of artificial heat, are, in the southern provinces of Russia, produced spontaneously.

23 Minerals.

Russia is not less rich in mineral productions, of which Siberia in particular contains a great variety. In the brief sketch of Russian mineralogy which we can here offer, we shall confine ourselves chiefly to the metallic mines. Of these there are few in European Russia, and those principally of iron. It appears that there was formerly a gold mine near the river Vigg in the north-western corner of the empire; and in the year 1739, gold was discovered in the same region, in the mountains of Olonetz; but the product was scarcely sufficient to indemnify the government for the expence of working the mine, not more than 57 pounds of gold having been procured within the year. The richest iron mines in European Russia, are about 60 miles from Mosco; and in the government of Perme are worked mines, both of iron and copper.

In Siberia there are valuable gold mines, especially those of Catharineburg, on the east of the Uralian mountains, in the latitude of about 57°, where an office for the management of the mines was established by Peter I. in 1719. Several mines of different metals extend to a considerable distance on the north and south of Catharineburg; and there are in this district above 100 founderies, chiefly for copper and iron. The principal gold mines in this district are those of Beresof, a few miles north-east of Catharineburg, near the river Pyshma, that falls into the Tobol. The gold is sometimes found native, but is generally mixed with various substances, especially silver. There are other mines in Kolhyvan and Nershinsk, chiefly of lead and silver, with a small proportion of gold. The former of these were discovered in 1704, and the latter in 1748. In the mines of Beresof is found the red lead of Siberia; and in the copper mines, about 30 miles south of Catharineburg, that particular ore called malachite, or stalactitic copper, is found in great perfection. There are also copper mines in the Altai mountains, where dendritic copper is met with. The richest iron mines in this part of Russia are in the neighbourhood of the Uralian chain. The large mass of native iron which we have mentioned under GEOLOGY, N° 165. was found by Professor Pallas in Siberia, near mount Emor or Nemir, not far from the river Yenissy.

Rock salt is found in several parts of Siberia, especially near the Ilek, not far from Orenburgh. Coal is a rare production in Russia; but it is found near Lake Baikal, and in the steppe between the Don and the Volga. Sulphur, alum, sal ammoniac, nitre, and natron, are found in great abundance.

There are also found in Siberia various gems, which we must not omit to notice. These are discovered chiefly in the mountain Adunshollow, in the province of Nershinsk or Daouri, not far from the Chinese river Argoon. Here are found common topazes, the hyacinth, the Siberian emerald, the beryl, the onyx, and beautiful red and green jaspers. Near Catharineburg are the gem mines of Moursintsky, where are found the beryl and the chrysolite. Near Lake Baikal red garnets are very common; and there are also found lapis lazuli and the baikalite of Kirwan. The opal is said to be found in the Altai mountains.

24 Mineral waters.

The mineral springs of Russia are found principally in the Asiatic part, especially in Kamtschatka. The only European mineral waters that merit particular notice are, a hot spring near Selo Klintschy, in the government of Perme; a noted chalybeate spring in the village of Vingova, in the district of Olonetz, distinguished by Peter the Great, and called by him St Peter's Well, and another chalybeate spring, or rather assemblage of springs strongly impregnated with iron, discovered in 1775, near Sarepta on the Volga. In the district of Perekop and the island of Taman, belonging to the government of Taurida, there are springs of naphtha. Springs impregnated with naphtha and petroleum are also found near lake Baikal. At Sarepta there is a sulphurous spring, and there are several others in Siberia. On the Terek, towards Mount Caucasus, are warm springs that serve as baths; and similar baths occur

occur in the province of Nershinsk, in the territory of the Kalmuks, to the south of the Altai mountains, and in the neighbourhood of Baikal. Chalybeate waters are found among the iron mines near Catharineburg, and a few occur in the province of Daouria.

The principal hot baths of Asiatic Russia are in Kamtschatka, and are formed by the hot springs noticed in N° 7. The chief bath of this kind is in the southern part of the peninsula near Natchikin. The hot waters here fall in a rapid cascade, about 300 feet below which they are collected into a bason six or seven feet broad, and 18 inches deep. The water is extremely hot, and is said to contain vitriolic and nitrous salts.

25 Russian islands.

Before we conclude what may be called the permanent geography of Russia, we must enumerate the islands that belong to this extensive empire, and particularly notice such of them as have not been described in other parts of this Encyclopedia.

In Europe the Russians possess the islands of Oesel and Dago in the Baltic, and the little island of Cronstadt at the entrance of the gulf of Finland, the islands of Novaya Zemlia, and several smaller islands in the Arctic ocean; and though the dreary island of Spitzbergen is generally considered as belonging to Denmark, it is at least equally shared by the Russians, some of whom regularly winter here, on account of the whale fishery.

In Asiatic Russia we may enumerate the Aleutian (Aleoutskie or Fox) islands, of which Bhering's island is the only one deserving particular notice; the Andrenovian islands, about 500 miles to the south-east of Bhering's island, and the Kurile or Kurilian islands, extending from the southern promontory of Kamtschatka towards Japan.

26 Dago.

The island of Dago, but briefly noticed in our general alphabet, is for the most part rocky, and its western shore is sandy; but the southern and eastern parts consist of a bluish clay, and are very fertile. They produce considerable quantities of barley, especially in rainy seasons; but it is found necessary to sow the seed very early in the spring. There are here several forests, especially one of alders, which is seen at a great distance, and serves as a land-mark. This island is extremely populous, and very healthy. It is inhabited chiefly by Esthonians. The sea round Dago abounds with shallows, rocks, and sand banks, that render the navigation dangerous; but to prevent ships from being stranded on the coast, a light-house has been erected on the western promontory, about three miles from the sea.

27 Oesel.

Oesel is much more considerable than Dago, being nearly 80 miles long, and about 60 at its greatest breadth. Its soil is naturally more barren than that of Dago, being chiefly sand, or loam and clay; but as it is well manured, the crops are pretty considerable. These consist of wheat, rye, and barley, and in favourable seasons, oats and pease. Oesel abounds in quarries, from which are procured excellent limestone, black and gray flagstone, and grindstones. Marble is also found, but is not much esteemed.

28 Novaya Zemlia.

The islands of Novaya Zemlia, or the New Land, consist chiefly of two very large insulated tracts, nearly alike in size and figure, extending between 49° and 68° of east longitude, and between 70° and 77° of north latitude. They are separated from the main land by the strait of Waigats. They may be estimated at 600 miles in length, by a medium breadth of nearly 400. Yet this large tract of country is desert and uninhabited, except by reindeer, polar bears, white and blue foxes; and on the coast seals and walrusses. The islands are well supplied with water, but are rocky and destitute of wood except a few stunted bushes. On the northern side they are encompassed with mountains of ice. In these dreary regions the sun is not seen for nearly four months, viz from the middle of October to February.

29 Bhering's island.

Bhering's island is situated in the sea of Kamtschatka, about 3° to the east of that peninsula, extending from 55° to 56° of N. Lat. It was discovered by Bhering in 1740. It consists of a range of bald cliffs and hills, running north and south, the highest of which are nearly 1000 fathoms above the level of the sea. These rocks consist of granite in the middle ridge, and a sandstone on each side; but some of the lower appear to be covered with clay. This island is entirely destitute of wood, but is otherwise not bare of vegetation. It contains springs of excellent water, and has several fine cataracts. The cold is moderate, and thunder has never been observed, though it is said some shocks of earthquakes have been felt. There are no human inhabitants; but the island affords a dwelling to sea bears, arctic foxes, seals, and walrusses. The Aleutian and Kurilian islands, have already been described under their respective heads; and an account of SPITSBERGEN will be found under that article.

30 Origin of the Russian empire.

Russia was scarcely known as an independent state before the latter end of the 9th century. We know, indeed, that long before that period, namely about the 5th century, a horde, of those nations that roved at large on the banks of the Dnieper and the Volkhof, established themselves in that part of the region bordering on the Dnieper, where is now situated the government of Kief or Kiow. These people were called Slavi, or Slavonians, and had advanced eastward from the shores of the Danube. They appear to have laid the first foundation of the Russian monarchy, and to have built Kief, where they fixed their capital. It is probable that about the same time another tribe of Slavi had settled still farther to the east, in the province of Novgorod, where they built the city still known by that name, as their metropolis. Of the government and transactions of these people we have no regular accounts till the conclusion of the 9th century. It appears, however, from a work of the emperor Constantine Porphyrogenitus on the administration of the empire, that in his time the city of Novgorod was a place of great importance, and carried on an extensive commerce, both with Constantinople and the countries bordering on the Baltic. The government of the Novgorodians appears to have been republican, but the people were probably rather merchants than warriors. We find them involved in frequent disputes with the neighbouring nations, from whose ravages they suffered considerable losses.

31 Settlement of the Varagians in Russia.

If we may credit the Russian historians, the Slavi that had settled about Kief and Novgorod, must have extended the boundaries of their territory northwards as far as the shores of the Baltic. We find that they were much harassed by a piratical nation who dwelt on the coasts of that sea, and were denominated Varages or Varagians, and who made frequent descents on the Russian coasts, and ravaged the country. It is not improbable that these Varagians formed a part of the Scandinavian nations, who, under the names of Danes and Saxons,

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Saxons, successively made themselves masters of England. They were occasionally employed by the weaker neighbouring states as mercenary auxiliaries, and in this capacity they were once called to the assistance of the Novgorodians. As is usual, where a weak people requires the assistance of a warlike and powerful nation, the auxiliaries, after having overcome the enemies whom they were invited to combat, began to think of availing themselves of the advantages which their bravery had given them over their employers. From allies and servants they soon became the masters of the Slavi; and finding the country about Novgorod superior to that which they had left, they began to think of taking up their residence in their new quarters.

32 An. 860. Establishment of the monarchy under Ruric.

Their leader Ruric built a town near the Volkhof, and surrounded it with a rampart of earth. This town is now called Old Ladoga. Here Ruric established the seat of his government. This event appears to have taken place about the year 860; and from this period we may date the commencement of the Russian monarchy. Ruric was assisted by two other chiefs of the Varages, Sinaus and Truvor, who are supposed to have been his brothers, and with whom he divided the territory of which he had possessed himself. Of these, Sinaus took up his residence at Bielo Osero, or the white lake, while Truvor kept his court at Isborsk, or according to some, at Twertzog, in the district of Pleskow. The three chiefs having thus divided among them the territories of the Novgorodians, continued to reign in amity with each other for several years.

33 Opposition of the Slavi.

The Slavi, however, did not submit to the dominion of their new masters, without an effort to regain their independence. At first, astonishment at the unexpected proceedings of their auxiliaries overcame the spirit of liberty which had hitherto actuated their minds; but they soon awakened from their lethargy, and determined to repel by force those whom they now considered as the invaders of their country. They flew to arms, and chose for their leader, Vadim, who by his feats in war had acquired the honourable appellation of the *valiant*. A fierce engagement took place between the Novgorodians under Vadim, and the Varages headed by Ruric and his brothers. The contest ended in favour of the latter, and the brave Vadim, with several other chiefs of the Novgorodians, lost their lives in the attempt to free their country from its ambitious guests. This new success emboldened Ruric to extend his territories, and to change the seat of government from the insignificant town of Ladoga, to the spacious and opulent city of Novgorod. Soon after, by the death of his partners in the government, Ruric became sole monarch of the conquered territory, where he reigned without farther molestation for 17 years, and became the primogenitor of a long line of descendants, who held the sovereignty without interruption for several centuries. Ruric appears to have been zealous for the strict administration of justice in his dominions, and issued his command to all the boyars who held territories under him, to see it exercised in an exact and uniform manner. We are not informed of the nature of his institutions; nor is it known whether the laws then existing in his territories were merely oral, or were committed to writing.

Ruric assumed the title of grand prince. His dominions extended over the present governments of Riga, Reval, Polotsk, Pscov, Vyborg, St Petersburg, Novgorod, Smolensk, Olonetz, Archangel, Vladimir, Yaroslavl, Kostroma, and Vologda.

34 An. 879. Regency of Oleg.

As Ruric left only one son, Igor, who was still a minor at his father's death, Oleg, a kinsman of the deceased monarch, took on him the administration of affairs. Either from the natural restlessness of the Varages, or from the spirit of rebellion manifested by the Novgorodians, which indicated the necessity of employing his people in some active enterprise, the new monarch did not long remain idle. He appears very early to have projected the extension of his territories, by annexing to them the settlement which the Slavi had formed about Kief, against which he soon undertook a formidable expedition. He collected a numerous army, composed of Slavi, Varages, and Tschudes, carried with him the young prince Igor, and opened the campaign with the capture of Lubitch, and of Smolensk the capital of the Krivitsches (c).

35 Annexation of Kief to the Russian principality.

Having reduced several other towns of less consequence, he advanced towards Kief, the possession of which formed the chief object of his ambition, as through the Kievian territory he would have an easy passage to the Grecian empire, by inroads into which he could gratify the predatory disposition of his followers. Having advanced near the walls of Kief, he did not think it advisable to hazard an open attack, and thus leave to the precarious decision of a battle the ultimate success of his favourite project. He therefore had recourse to artifice, and leaving behind him the greater part of his troops, he concealed the remainder in the barks that had brought them down the Dnieper from Smolensk. Oleg himself, disguising his name and quality, passed for a merchant sent by Oleg and his ward Igor on business of importance to Constantinople; and he dispatched officers to Oskhold and Dir, the two chieftains of the Kievians, requesting permission to pass through their territory into Greece, and inviting them to visit him as friends and fellow-citizens, pretending that indisposition prevented him from paying his respects to them in person. The princes, free from mistrust, and relying on these appearances of friendship, accepted Oleg's invitation, and scarcely thought it necessary to take with them their ordinary attendants. They were soon undeceived; for when they arrived at the regent's encampment, they were quickly surrounded by the Varagian soldiers, who sprung from their place of concealment in the barks. Oleg taking Igor in his arms, and casting on the sovereigns of Kief a fierce and threatening look, exclaimed, "You are neither princes nor of the race of princes; behold the son of Ruric." These words, which formed the signal that had been agreed on

(c) The Krivitsches were a Slavonian tribe who inhabited the regions bordering on the upper parts of the rivers Volga, Dvina, Oka, and Dniepr, where are now the governments of Polotzk, Smolensk and Minsk. The Tschudes whom we have mentioned as forming part of Oleg's army, were a nation of Finnish extraction, and inhabited those districts which form part of the present governments of Pscov and Reval.

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on between Oleg and his soldiers, were no sooner uttered, than the latter rushed on the two princes, and laid them prostrate at the feet of their master.

The inhabitants of Kief, thrown into consternation by this bold and treacherous act, made no resistance, but opened the gates of their city to their invader; and thus the two Slavonian states were united under one head.

36 First Russian expedition against Constantinople.

Having thus made himself master of the key to the eastern empire, Oleg prepared to carry into effect his ambitious designs against Constantinople. Leaving Igor at Kief, he himself embarked on the Dniepr with 80,000 warriors, on board of not fewer than 2000 vessels. Their passage down the river met with no obstruction, till they came to that part where its course is embarrassed for nearly 15 leagues by seven rocks; and here began a series of perils, labours, and fatigues, which none but barbarians could have overcome. They were obliged to unload their barks, and convey them over the rocks; and in particular at the fourth rock, they carried their baggage for above 6000 paces, exposed to the perpetual risk of attack from the neighbouring nations with whom they were at war, while thus hampered and encumbered. Having at length passed all the rocks, and reached the mouth of the Dniepr, Oleg drew together his scattered vessels at a small island that lies between the points of Otchakof and Kinburn, where he caused them to be refitted, and waited for a favourable wind to carry him across the Black sea to the mouth of the Dniester. Here the vessels were again refitted, and hence the expedition coasting along the shores of the Euxine, soon arrived at the strait of Constantinople.

The inhabitants of the imperial city, on discovering the approach of the barbarians, had drawn a massy chain across the harbour, thus hoping to prevent their landing. In this hope, however, they were deceived. The invaders drew ashore their barks, fitted wheels to their flat bottoms, and converted them into carriages, which by the help of sails they forced along the roads that led to the city, and thus arrived under the walls of Constantinople. In their route they ravaged the whole country, and pillaged and demolished the houses, loaded the inhabitants with irons, and committed other enormities which generally attend the incursions of a barbarous enemy. The earth that had been fertilized by the sweat of the husbandman, was now drenched with his blood, and the sea received, as in one vast grave, both the carcases of the dead, and the bodies of the living. The weak Leo, who then swayed the sceptre of the Grecian empire, instead of making a manly resistance, is said to have attempted carrying off his enemy by poison; but this not succeeding, he was obliged to purchase from the conqueror an ignominious peace. Thus, even at that early period, the sovereign of Russia triumphed over the emperor of Constantinople, and Oleg acquired the full completion of his wishes, by the rich booty which he carried off. He made his entrance into Kief on his return, laden with the wealth acquired by his victory; and the people, dazzled with such splendid objects, imagined their prince to be endowed with supernatural powers, and looked up to him with a reverence approaching to adoration.

Soon after his return to his own dominions, the Russian monarch dispatched deputies to Constantinople, with the articles of a treaty which he required the Greek emperor to sign*. This treaty, which is preserved in the Chronicles of Nestor, is extremely curious; and we learn from it many important particulars respecting the internal policy of the Russians at the beginning of the tenth century. Several articles of this treaty shew, that the Russian laws laid great stress on oaths; that they pronounced the sentence of death against the murderer, instead of inflicting on him only a pecuniary fine, and thus allowing the rich to commit assassination with impunity; that wives were allowed a part of the estates of their husbands; that the punishment of offences did not extend to the entire confiscation of goods, and hence the widow and orphan did not suffer for a crime of which they were innocent; that robbery, which attacks only property, was punished by the privation of property, so that the Russian laws maintained a just proportion between the crime and the penalty; that the citizens, secure in their possessions, were under no apprehension that the sovereign would seize on their heritage, and might even dispose of their effects in favour of friends.

* Tooke's History of Russia, vol. p. 154.

Oleg maintained the sovereign power for 33 years, nor does it appear that Igor, even after he obtained the age of majority, had any share in the government, till the death of his guardian, in 913, left him in full possession of the throne.

37 An. 913. Accession of Igor.

Igor had reached his 40th year before he entered on the government. He soon discovered marks of the same warlike spirit which had actuated his predecessor. Among the nations that had been subjugated by Oleg, several, on the accession of a new sovereign, attempted to regain their independence; in particular the Drevlians, who dwelt on the banks of the Uscha, in the present district of Vrutsch, were the first to rise in revolt. They were, however, soon quelled, and punished by the imposition of an increased tribute. The Uglitches, who inhabited the southern bank of the Dniepr, maintained a longer contest for their liberty. One of their principal towns sustained a siege of three years, and at last submitted on condition of the trifling tribute of a marten's skin blackened by fire; as these furs were valued in proportion to the darkness of their colour.

Igor soon had to contend with more formidable enemies. The Petchenegans, a nation hitherto unknown, quitted their settlements on the Yaik and the Volga, and made incursions into the Russian territory. These people appear to have been at least as powerful and warlike as the Varages; and Igor finding himself unable to cope with them in arms, concluded a treaty of alliance. About five years after, disputes arose between the new allies, and both had recourse to arms. It appears that the Russians were finally victorious, and the Petchenegans were, for some time, disabled from giving Igor any farther molestation.

38 An. 941. Second expedition against Constantinople.

The Russian monarch, in imitation of his guardian, soon turned his attention towards the Grecian empire, where depredations might apparently be made with impunity. He equipped an immense armament, consisting, as we are assured by the Russian annals, of 10,000 barks, each carrying 40 men, thus forming an army of 400,000 warriors. With this immense force he set sail for Constantinople, without any previous declaration of war, and without any ostensible motive for thus infringing the treaty that had been concluded some years before between Oleg and Leo. In his route he overran and ravaged the provinces of Paphlagonia, Pontus, and Bithynia,

thynia, plundering the towns, and butchering the inhabitants. For some time the barbarians met with no opposition, as the imperial troops were engaged in distant provinces; but the government of the empire was now in very different hands from those which held it during the former invasion. The Grecian forces were well appointed, and commanded by two generals of approved ability and courage. These were Theophanes and Phocas, of whom the former commanded the fleet, and the latter the army. The Russians had soon cause to repent their temerity. Theophanes attacked them on board their ships, within sight of the Pharos, and throwing among them the unquenchable Grecian fire, with the effects of which they were wholly unacquainted, threw them into such confusion, that many plunged into the sea to avoid the fires that threatened and pursued them. Their vessels were dispersed, shattered, or consumed by flames, and great numbers of their crews perished. The remainder reached the shores of Bithynia; but before they could recover from their consternation, they were met by Phocas, who fell upon them with his troops, and made prodigious slaughter. So great were the losses sustained by Igor in this unfortunate expedition, that he carried back with him scarcely a third of his army. This second naval expedition of the Russians against Constantinople took place in 941.

Though discouraged by the ill success which had attended his first invasion of the Grecian empire, Igor was too much stimulated by the desire of plunder, not to risk the second attempt. Three years after, he collected new forces, took into pay many of the Petchenegans, and again set out for Greece; but before he had advanced beyond the Taurican Chersonesus, the emperor Romanus, informed of his approach, and not choosing to hazard the result of an engagement, sent deputies to the Russian leader, offering to pay him the same tribute which had been given to his predecessor. With this offer Igor complied, and once more retired with his army.

Igor was now far advanced in years; but the insatiable rapacity of his officers, ever craving fresh spoils from vanquished nations, impelled him to turn his arms against the Drevlians, for the purpose of obtaining from them an increase of their yearly tribute. In this unjust attack he was at first successful, and returned loaded with the contributions which he had levied from that people; but having dismissed great part of his troops with the spoils of the vanquished, and marching with the remainder too far into the country, he fell into an ambuscade, which the Drevlians, now grown desperate, had formed on his approach in the neighbourhood of Korosten. The Russians were soon overpowered, and Igor being made prisoner, was put to death.

39 An. 945. Regency of Olga.

Before the death of Oleg, Igor had married a princess of a bold and daring spirit, named Olga, by whom he had one son, Sviatoslaf; but as he was very young at the death of his father, the queen mother Olga assumed the reins of government. Her first care was to take signal vengeance on the unhappy Drevlians, for having bravely defended themselves against the encroachments of tyranny and oppression. These people, satisfied with the death of their oppressor, appeared desirous of renewing their amicable intercourse with the Russians, and their chief, Male, is even said to have made an offer of his hand to Igor's widow. Olga, with that deep cunning and concealed malice that so often mark the character of the despotic leader of a barbarous people, pretended to listen to their overtures, received the deputies of Male, but immediately ordered them to be privately put to death. In the mean time she invited a larger deputation from the Drevlian chief, which she treated in the same inhuman manner, taking care that no tidings of either murder should be carried to the Drevlians. She then set out, as if on an amicable visit, to conclude the new alliance, and having proclaimed a solemn entertainment, to which she invited some hundreds of the principal inhabitants of the Drevlian towns, she caused them to be treacherously assassinated. This was but the first step to the more dreadful vengeance which she had resolved to inflict on this deluded people. She laid waste the whole country of the Drevlians, and in particular the town of Korosten, near which Igor had lost his life. For a long time she could not master the place, as the inhabitants, dreading the horrible fate that awaited them, from the revengeful spirit of Olga, defended themselves with the utmost valour and success. At length, being assured of clemency, on condition of sending to Olga all the pigeons of the town, they submitted; but Olga causing lighted matches to be fastened to the tails of the pigeons, set them at liberty. The birds flew to their usual places of residence in the town, which were speedily in a conflagration. The wretched inhabitants endeavouring to escape the flames, fell into the hands of the Russian soldiers, planted round the town for that purpose, by whom they were put to the sword.

This was the only warlike transaction, if it deserves that name, which took place during the regency of Olga. Though not uncommon in the annals of a barbarous people, it would have been sufficient to hand down her name with detestation to posterity, had she not, in the opinion of her panegyrists, atoned for the enormity, by attempting to introduce into her dominions the Christian religion.

40 Religion of the Slavi.

Hitherto the Slavi, and the Scandinavian nations who had taken possession of their territories, were Pagans; and their religious ceremonies, like those of all the surrounding nations, were marked by an absurd and cruel superstition, which, under pretence of worshipping the Supreme being, insulted his attributes, and increased instead of lessening the miseries of human nature. Their deities seem to have been borrowed, partly from the Greeks and Romans, and partly from the Scythians; but were characterised by peculiar names, and represented by idols of complex workmanship and grotesque appearance. Thus, the god Perune, or Perkune, who was the chief among the Slavonian deities, analogous to the Zeus of the Grecian, and the Jupiter of the Roman mythology, was personated by an idol whose head was of silver, his ears and mustachios of massy gold, his legs of iron, and his trunk of hard incorruptible wood. It was decorated with rubies and carbuncles, and held in its hand a stone carved, to represent the symbol of lightning. The sacred fire burnt continually before it; and if the priests suffered this to be extinguished, they were doomed to perish in the flames, as enemies of the god. Sacrifices of their flocks to this supreme deity were regarded as trifling; his altar smoked with the blood of captives, and even the children of his worshippers were sometimes immolated to appease his wrath or propitiate his favour. Superstition has in all ages, tinged the

hands

Russia

hands of its pontiffs with blood, and has everywhere represented the Deity as a cruel and malignant being delighting in the spectacle of suffering humanity.

41 Conversion of Olga to Christianity.

It is uncertain at what time the light of Christianity began to beam on the nations that occupied the banks of the Dniepr, nor are we acquainted with the circumstances that led to the conversion of the queen regent. We find, however, that about the middle of the 10th century, she undertook a journey to Constantinople for the express purpose of being initiated into the religion of Jesus. Constantine Porphyrogenitus, who then sat on the imperial throne, received the royal convert with the greatest honour and respect; himself conducted her to the baptismal font, and, in the character of her sponsor, gave her the name of Helen. He dismissed her loaded with rich presents, consisting chiefly of those fine stuffs which were then fabricated only in the east, and several costly vases. In return for the honour she had received at Constantinople, Olga promised to send the emperor a quantity of furs and wax, and to furnish him with troops: but as she delayed the performance of her promise, Constantine despatched an embassy to remind her of her engagements. We are told that she treated the ambassadors with disrespectful levity, and dismissed them with frigid compliments; so little change had baptism effected on the insidious disposition of the Russian princess! It is no wonder, therefore, if her example had little influence on her son, or the nation at large. The Russians do not seem to have been very ardent in their religious observations, or peculiarly attached to the opinions of their forefathers; but the nature of Christianity, and the character of its disciples, were not in their eyes sufficiently striking or alluring to produce any change in their religious system. Olga endeavoured to persuade her son Sviatoslaf to embrace her new religion; but either from his contempt for the unwarlike character of the Greek Christians, or through fear of the ridicule to which his conversion might subject him from his young companions, he disregarded her solicitations. He did not, however, prevent the people over whom he seems by this time to have assumed the chief dominion, from receiving baptism, and a few proselytes were made. Though the character of Olga, even after her conversion to Christianity, was by no means such as to intitle her to the rank which she afterwards attained among the Russian saints, it appears that she had given her son many wise and prudent instructions respecting the government of his future empire. She travelled with him round the country; superintended the erection of bridges and the making of roads, for the benefit of trade and commerce; built several towns and villages, and founded such laudable institutions, as sufficiently evince her talents for governing a nation. She died about the year 969, at a very advanced age.

42 Reign of Sviatoslaf.

It is probable that Olga retired from the administration of affairs soon after her conversion to Christianity; for we find Sviatoslaf in full possession of the government long before his mother's death. This prince has been considered one of the Russian heroes; and if a thirst for blood, a contempt of danger, and disregard of the luxuries and conveniences of life, be admitted as the characteristics of a hero, he deserves the appellation. His private life was such as to render him the favourite of his army. Regarding the narrow inclosure of a palace as little better than a splendid prison, he took up his habitation in a camp, where he indulged himself in nothing more delicate or costly than what could be procured by the meanest soldier in his army. Without a utensil for preparing his food, he contented himself with cutting up the meat which was to form his meals, and broiling it upon the coals; and this meat often consisted of horse flesh. If he kept so poor a table, he was not more delicately lodged. He had no tent, but slept in the open field, with a saddle for his pillow, a horse-cloth for his covering, and lying on the bare ground, or at most on a piece of the coarsest felt. How much influence such a mode of life must have had on the minds of the barbarous soldiers whom he commanded, is sufficiently proved by the experience of times far posterior to that of which we are now writing. The Swedish hero who, in the beginning of the 18th century, astonished the whole of Europe with his mad exploits, fared in a similar manner, and, like Sviatoslaf, became the darling of his troops. Soldiers willingly share dangers and death with a leader who submits himself to every hardship, and denies himself every accommodation, except what he can enjoy in common with themselves.

43 An. 965.

When Sviatoslaf had thus ingratiated himself with his troops, he prepared to employ them in those ambitious projects which he had long been forming. His first expedition was against the Kozares, a people who had come from the shores of the Caspian, and the sides of Mount Caucasus, and had established themselves along the eastern coast of the Black sea. These people had rendered tributary both the Kievians and the Viateches, a Slavonian nation that dwelt on the banks of the Oka and the Volga. Sviatoslaf, desirous of transferring to himself the tribute which the Kozares derived from the latter people, marched against them, and appears to have succeeded in his design. He defeated them in a pitched battle, and took by storm their capital city Sarkel, or Belgorod. It is said by some historians, that he even annihilated the nation; and certain it is, that from that time no mention is made of the Kozares.

44 His alliance with the Greek emperor.

The martial fame of Sviatoslaf had extended to Constantinople; and the emperor Nicephorus Phocas, who was then harassed by the Ungrians, assisted by his treacherous allies, the Bulgarians, applied for succours to the Russian chieftain. A subsidiary treaty was entered into between them, and Sviatoslaf hastened with a numerous army to the assistance of his new allies. He quickly made himself master of most of the Bulgarian towns along the Danube, and was so elated with his success, that he determined to remove the seat of government from Kief to the city of Pereiaslavatz, now Yamboly, seated on the shores of that river. He was soon obliged, however, to postpone the completion of this design, on receiving intelligence that his old enemies the Petchenegans had assembled in great numbers, ravaged the Kievian territory, and laid siege to the capital, within the walls of which were shut up his mother and his sons. Sviatoslaf hastened to the relief of his family, but before he reached home, the Petchenegans had been induced to raise the siege by an artifice of the Kievian general. Sviatoslaf on his arrival pursued the enemy, defeated them, and obliged them to sue for peace.

45 His division of the principality.

He now resumed his design of establishing himself on the banks of the Danube, and divided his hereditary dominions among his children. He gave Kief to Yaropolk,

ropolk, the Drevlian territory to Oleg, and on Vladimir, a natural son, born to him by one of the attendants of Olga, he bestowed the government of Novgorod. On his return to Bulgaria, however, he found that his affairs had assumed a very different aspect. The Bulgarians taking advantage of his absence with his troops, had recovered most of their towns, and seemed well prepared to resist the encroachments of a foreign power. They fell on Sviatoslaf as he approached the walls of Pereiaslavatz, and began the attack with so much fury, that at first the Russians were defeated with great slaughter. They, however, soon rallied, and taking courage from despair, renewed the battle with so much success, that they in their turn became masters of the field. Sviatoslaf took possession of the town, and soon recovered all that he had lost.

During these transactions the emperor Nicephorus had been assassinated, and John Zemisces, his murderer, had succeeded to the imperial diadem. The new emperor sent ambassadors to the Russian monarch, requiring him to comply with the stipulations of his treaty with Nicephorus, and evacuate Bulgaria, which he had agreed to occupy as an ally, but not as a master. Sviatoslaf refused to give up his newly acquired possessions, and prepared to decide the contest by force of arms. The particulars of this campaign, and the numbers of the contending armies, are very differently related by the Russian annalists, and the historians of the Grecian empire; the former stating that Sviatoslaf had not more than 10,000 men, and yet was victorious over the troops of Zemisces; while the Grecian historians affirm that the Russians amounted to 300,000, but were defeated, and compelled to abandon Bulgaria by the superior skill and discipline of the imperial troops. As far as respects the issue of the war, the Grecian writers are probably correct, for it is certain that Sviatoslaf retreated towards Russia with the shattered remains of his army. He did not, however, live to reach the capital, for having, contrary to the advice of his most experienced officers, attempted to return to Kief, up the dangerous navigation of the Dnieper, he was intercepted by the Petchenegans near the rocks that form the cataracts of that river. After remaining on the defensive during winter, exposed to all the horrors of famine and disease, he on the return of spring attempted to force his way through the ranks of the enemy: but his troops were defeated, and himself killed in the battle.

It is said that Sviatoslaf extended the boundaries of the Russian dominions by his conquests in Bulgaria; but if his expeditions in that quarter terminated in the manner which we have related, this extension must have been merely temporary, and seems to have had little effect in increasing the power and resources of his successors.

46 An. 973. Succession of Yaropolk.

Yaropolk the sovereign of Kief may be considered as the successor of Sviatoslaf on the Russian throne; but his reign was short and turbulent. A war took place between him and his brother Oleg, on account of a base assassination committed by the latter on the son of his father's friend and privy counsellor Svenald. Oleg was defeated and slain, and the other brother, Vladimir, dreading the increased power and ambitious disposition of Yaropolk, abandoned his dominions, which were quickly seized on by the Kievian prince. Vladimir had retired among the Varagians, from whom he soon procured such succours as enabled him to make effectual head against the usurper. While his natural courage was thus increased, his enmity against Yaropolk received an additional spur from an affront put on him by a lady whom he had sought in marriage, but who despising the meanness of his birth, as being the son of a slave, had rejected his proposals, and offered her hand to Yaropolk. The vindictive Vladimir, on being informed of this insult, attacked the possessions of the lady's father, put both him and his two sons to the sword, and obliged the princess to accept his hand, yet reeking with the blood of her father. He now advanced towards Kief, where Yaropolk was by no means prepared to oppose him. The Kievian prince had indeed been lulled into security by the treacherous reports of one of his voyevodes, who was in the interest of Vladimir, and who not only prevented Yaropolk from taking effectual measures for his safety, but found means to raise suspicions in his breast against the inhabitants of his capital, which he thus induced him to abandon. The Kievians, left without a leader, opened their gates to Vladimir; and the wretched Yaropolk, still misled by the treachery of his adviser, determined to throw himself on the mercy of his brother. It is probable that this would have availed him little, as Vladimir seems to have determined on his death; but before he could reach the arms of his revengeful brother, Yaropolk was assassinated by some of his Varagian followers.

47 An. 981.

By this murder, which had probably been planned by Vladimir, the conqueror acquired the undivided possession of all his father's territories, and maintained the sovereignty during a long reign, respected at home, and feared abroad. Indeed, had not the commencement of his reign been stained with the blood of his father-in-law and his brother, we might place him among the most distinguished monarchs of the age in which he lived, as he not only extended and enriched his empire, but was the means of establishing in his dominions on a firm and lasting basis, the Christian religion, which though introduced by Olga, appears hitherto to have made but a very trifling progress.

48 Reign of Vladimir the Great.

The commencement of Vladimir's reign formed but a continuation of those enormities which had conducted him to the throne. He began with removing Blude, the treacherous voyevode, by whom his brother had been betrayed into his power, and to whom he had promised the highest honours and dignities. Accordingly for three days he suffered Blude to live in all the splendour of a prince. At the end of that period he thus addressed him. "I have fulfilled my promise; I have treated thee as my friend: the honours thou hast received exceed thy most sanguine wishes. To day as the judge of crimes, and the executor of justice, I condemn the traitor, and punish the assassin of his prince." Having uttered these words, he caused Blude to be put to death.

He displayed still more the perfidiousness of his character in his behaviour towards the Varagians, who had assisted in reinstating him on the throne of his ancestors; for on their requesting permission to go and seek their fortune in Greece, he granted their request, but privately advertised the emperor of their approach, and caused them to be arrested and secured.

Vladimir engaged in numerous wars, and subjected several of the neighbouring states to his dominion. He seized

seized on part of the Polish territories, and compelled the Bulgarians who dwelt in the districts that now form the government of Kazan, to do him homage. He subdued the Petchenegans and Khazares, who lay in the immediate neighbourhood of the Kievian state; he reduced to his authority Halitsch and Vladimir, countries which are now called Gallicia and Lubomiria; he conquered Lithuania as far as to Memel, and took possession of a great part of the modern Livonia.

49 Originally a devout Pagan.

His conduct after these successes by no means prognosticated his future zeal for the Christian religion. None of the Russian monarchs appear to have been more devout in the adoration of their heathen deities than Vladimir. It was usual for him to return thanks to the gods for the success which they had granted to his arms; and to show his gratitude by offering on their altars a part of the prisoners he had taken in war. On one occasion his piety extended so far, that he resolved on selecting one of his own subjects as the object of his sacrifice, thinking that he should thus more worthily testify his gratitude for the signal favours he had received from heaven. His choice fell on a young Varagian, the son of a Christian, and who had been brought up in the new faith. The unhappy father refused the demanded victim; the people enraged at deeming their prince and their religion insulted by the refusal, assailed the house of the Christian, and having burst open the doors, butchered both the father and the son, folded in mutual embraces.

50 Establishes Christianity in Russia.

Yet this furious Pagan, and bloody warrior, afterwards became a most zealous Christian, and a shining example to his subjects of charity and benevolence. The circumstances that led to these important changes are, as well as the martial achievements of this favourite prince, related with great minuteness by the Russian annalists, and give this part of their chronicles the air rather of a historical romance, than a narrative of facts. We are told that the fame of Vladimir's military exploits had rendered him so formidable to the neighbouring nations, that each courted his alliance, and strove to render this more lasting by engaging him in the ties of the same religion with themselves. In particular the Grecian emperors sent to him a philosopher, whose exhortations, though they did not at first induce Vladimir to embrace the Greek ritual, at least succeeded in giving him a favourable opinion of it; so that the philosopher was entertained with respect, and returned home loaded with presents. We are also told, that, determined to act in the most impartial manner with respect to the several religions which he had been invited to embrace, he dispatched persons remarkable for their wisdom and sagacity, to visit the surrounding nations, observe the religious tenets and ceremonies that distinguished them, and report to him the result of their observations. On the return of these deputies, the report of those who had visited the churches of Constantinople, and witnessed the imposing splendour of religious adoration, and the gorgeous decorations of the Greek priests, in the superb basilicum of St Sophia, proved so satisfactory to Vladimir, that he determined on embracing the Christian religion according to the observances of the Greek church. Though he resolved on baptism, he was too proud to seek from the Greek emperor a priest, by whom the solemn ordinance might be performed. With a savage ferocity worthy of the times in which he lived, he determined to gain by conquest what his haughty soul disdained to acquire by request. He assembled an army selected from all the nations of which his empire was composed, and marching to Taurida, laid siege to Theodosia, a town even then of great repute, and which commanded the whole Chersonesus. On sitting down before the walls of this place, he is said to have offered up the following characteristic prayer: "O God grant me thy help to take this town, that I may carry from it Christians and priests, to instruct me and my people, and convey the true religion into my dominions." His prayer was at length granted; and, rather by stratagem than force, he made himself master of the town, and through it, of the whole Crimea. He might now have received baptism; but his desire of being initiated into the Christian faith seems to have been excited more by ambition than by true devotion. His ruling passion promised to be amply gratified by an alliance with the Grecian emperors, as he would thus acquire some legal claim on the territories which they possessed. He therefore demanded in marriage, Anna, the sister of Basilius and Constantine, who jointly held the imperial dignity, threatening, that if they refused his proffered alliance, he would lay siege to Constantinople. After some deliberation, the emperors complied, on condition that Vladimir and his people should become Christians; and these conditions being accepted, the Russian monarch was baptized, took the name of Basilius, received the Grecian princess, and, as the reward of his victories, carried off several popes and archimandrites, together with sacred vessels and church books, images of saints, and consecrated relicks.

51 His latter character.

Whatever might have been the considerations that swayed with Vladimir in his conversion to the Christian faith, it is certain that his new religion had the happiest influence on his future life and conduct. He not only abjured idolatry himself, and destroyed the idols which he had caused to be raised in his dominions, but used every exertion to persuade and compel his subjects to follow his example. Before his conversion, he is said to have possessed five wives, and 800 concubines, but after he became a Christian, he maintained an unshaken fidelity towards the imperial princess. As a Pagan he had been lavish of human blood, and set but a trifling value on the life of a man; but after he had adopted the religion of Jesus, he could scarcely be persuaded to sentence to death a single highway robber. His former delight had been in storming towns and gaining battles; but he now found his greatest pleasure in building churches, and endowing seminaries of education. He encouraged the raising of new cities and towns; peopled the waste districts of his country with the prisoners whom he had taken in war; and not only conducted himself as a sovereign who consulted the welfare of his dominions, but displayed many amiable qualities that highly endeared him to his subjects. On great festivals, he was accustomed to give entertainments to the inhabitants of the capital, and to send refreshments to those who were prevented, by sickness or infirmity, from attending the public feast. By these marks of regard to the general and individual interests of his people, he contributed to win them from the old religion, and to give them a taste for the new doctrines which he professed. By shewing that Christianity had made him both

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a milder and a wiser prince, he insured from his people a respect for the new religion, while the striking example of the sovereign and his nobles could not fail to influence the minds of the inferior orders. Having one day issued a proclamation, ordering all the inhabitants of Kief to repair next morning to the banks of the river to be baptized, the people cheerfully obeyed the order, observing that if it were not good to be baptized, the prince and the boyars would never submit to the ceremony.

An. 1015. 52 Death and character of Vladimir.

The establishment of Christianity in the Russian dominions, forms one of the most prominent features in the reign of Vladimir, and gives him a much juster claim to the title of *Great*, which has been bestowed on him by historians, than all his numerous victories. We have therefore dwelt on it with the greater minuteness. Indeed the latter transactions of his reign afford but little interest. His last days were embittered by domestic vexations; his wife and one of his favourite sons died long before him, and another of his sons, Yaroslaf, on whom he had bestowed the government of Novgorod, refused to acknowledge him as his liege, and applied to the Varagians for assistance against his father. The aged Vladimir, compelled to march against a rebellious son, died with grief upon the road, after a long and glorious reign of 35 years.

The character of this monarch may be easily collected from the account we have given of the transactions that marked his reign. He had certainly great, if not amiable qualities; and if he failed in communicating to his subjects the zeal for civilization and improvement which he himself possessed, it was the fault rather of the times, than of the instructor. His country remained barbarous, because barbarism was the characteristic of the age, and the monarch himself rose but little above the character of a barbarian, because the times in which he lived did not admit of superior refinement. It has been well observed by an ingenious writer on the history of Russia, that it is scarcely possible for a man to rise far above his cotemporaries, and that had Vladimir lived in the 17th century, the civilization and refinement of Russia might have been imputed to him, as it is now imputed to Peter the Great.

53 His improvement of the Russian monarchy.

Notwithstanding the circumstances we have noticed, the improvement which Russia owed to this prince was great and permanent. With the Christian religion he imported from Greece the arts which then flourished in that empire, and almost entirely new-modelled the language of his country, by engrafting on it the more refined dialect of the Greeks, and adopting, in a great measure, the letters of their alphabet. See PHILOLOGY.

The dominions of Russia, which at first consisted of two principalities, that of Novgorod, bordering on the Baltic, and that of Kief, occupying no very large space on the eastern bank of the Dniepr, were, by the victories of Vladimir, extended westward along the shores of the Baltic, into Lithuania and Poland; southward along the shores of the Euxine, so as to include the Crimea and great part of the Bulgarian territories; while to the east it extended to the Oka, the Don and the Volga. He still maintained the seat of government at Kief, of which he was styled grand prince, while the other districts were either tributary to that principality, or held of it as their superior.

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54 Partition of his dominions among his sons.

Before his death, Vladimir had divided his extensive territories among his twelve sons, reserving to himself and his immediate heir, the grand principality of Kief. The consequences of this ill-judged distribution were disunion, contention, and almost perpetual warfare among the brothers. The most respectable, and in the end the most powerful of these, was Yaroslaf, or as he is commonly called Jarislaus, prince of Novgorod. This prince finding that Sviatopolk, who had raised himself to the sovereignty of Kief after his father's death, attempted by assassination, or force of arms, to take possession of the neighbouring principalities, determined to resist him in his encroachments. Collecting an army of Novgorodians, he in 1016, drove Sviatopolk from Kief, and forced him to seek an asylum with his father-in-law, Boleslaus, duke of Poland. Boleslaus was easily persuaded to engage in the cause of his son-in-law, as he hoped to reap advantage from the quarrels among the descendants of Vladimir, and not only regain that part of his dominions which had been conquered by that prince, but enlarge his territory by encroachments on the Russian borders. He therefore accompanied Sviatopolk into Russia with an army, retook Kief, and obliged the Novgorodian prince to retire with precipitation. While he was endeavouring to collect fresh forces to renew the war with Boleslaus and Sviatopolk, the latter, by the treachery and perfidy with which he treated his Polish allies, contributed to his own downfall. He caused great numbers of the Poles to be secretly massacred, a transaction by which Boleslaus was so incensed, that he plundered Kief, made himself master of several places on the Russian frontiers, and then left his perfidious son-in-law to shift for himself. Sviatopolk now sought assistance from the Petchenegans, and with an army of these auxiliaries, offered battle to Yaroslaf, not far from the place, where he had, four years before, caused one of his brothers to be be murdered. The contest was long and bloody, but terminated in favour of Yaroslaf. Sviatopolk was put to flight, and died soon after.

55 Reign of Yaroslaf.

By this victory Yaroslaf acquired possession of the greater part of his father's dominions, and testified his gratitude for the assistance given him by the Novgorodians, by the attention which he paid to the particular improvement of that state. He drew up for it a code of laws, which are still known by the appellation of the municipal law of Novgorod. He also exerted himself for the welfare of other towns, and of the country at large.

An. 1051.

Yaroslaf did not neglect the advancement of the Christian religion. He established a metropolitan in Kief, and thus gave to the Russian clergy a head, who might watch over the morals of the inferior pastors, and provide for the general dissemination of the Christian doctrine. He collected several books in the Greek religion, and caused many of them to be translated into the Russian language.

An. 1054.

This monarch is supposed to have died in 1054, and to have reigned 35 years. He followed the example of his father, in dividing his territories among his sons, though he endeavoured to prevent the dissensions which he himself had witnessed from such a partition, by exhorting them on his death-bed, to the most intimate concord, and endeavouring to convince them that they would be respected by their subjects, and feared by their enemies,

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enemies, only while they continued to act with unanimity.

56 Dissensions among the successors of Yaroslaf.

We know little of the proceedings of Yaroslaf's successors, except that Isiaslaf, his eldest son, and grand prince of Kief, had frequent disputes with his brothers, in which he was assisted by the Poles, and supported by the influence of the Roman pontiff. During these disputes he was once expelled from his dominions, but again recovered them, and reigned till 1078.

From the death of Isiaslaf to the beginning of the 13th century, the history of Russia comprises little else than a continued series of intestine commotions and petty warfares with the neighbouring states. The same system of dismemberment was continued by the succeeding princes, and was attended with the same result. There were during this period not fewer than 17 independent principalities, though these were at length reduced to seven, viz. those of Kief, Novgorod, Smolensk, Vladimir, Tver, Haliteh, and Moskva (Mosco). Of these, Kief and Novgorod long continued to be the most powerful, though they could not always maintain their superiority over the other principalities; and towards the latter end of the period which we have mentioned, the district of Vladimir erected itself into a grand principality, and became at least as powerful as Kief and Novgorod.

57 Origin of the modern division of Russia.

In the supremacy of these three great principalities, we may trace the division of European Russia into Great, Little, and White Russia, a distinction which long maintained its ground, and in later times gave to the sovereign of this empire the title of monarch or emperor of all the Russias. Great Russia comprehended the principality of Novgorod, and extended northward to the White sea, eastward to the river Dvina, and the entrance of the Petchora into the Uralian mountains; while to the south it bordered on the district of Vladimir, as far as the Volga and the mouth of the Medreditza, and to the west on Lithuania and Prussia, including the tributary tribes on the Baltic, as far as Memel. Its capital was Novgorod. Little Russia extended along the river Ager to the north above the Donetz and the Oka, on the east to the Polovtzes and the Petchenegans, while to the south it stretched as far as the Taurican Chersonesus, or the Crimea, and to the west along the banks of the river Goryn. Th iswas the principality of Kief, and in that city was held the seat of government. The principality of Vladimir received the name of White Russia. It extended northward along the Volga, to the southern boundary of Great Russia; to the east it bordered on the possessions of the Ugres, and the territory of the Mordvines, stretching down the Volga to the mouth of the Oka; to the south it extended along the Oka to the principality of Riazan, and the Bulgarian territory. The metropolis of this division was at first Shuia, afterwards Rostof, Susdal, and Vladimir, till at length the seat of government was transferred to Mosco.

58 State of Novgorod.

The principality of Novgorod appears, during this interval, to have been the most respectable for its commercial intercourse with the neighbouring nations, and for the independent spirit of its internal government. This, though nominally monarchical, seems to have possessed much of a republican character. The princes were evidently dependent on the people, and some ludicrous instances of this dependence are related by the old historians. One of the grand princes had so much displeased his people, that they refused to pay him their usual obedience. As the prince seems to have been aware of the little influence which he possessed in the state, he employed the metropolitan of the principality to negotiate a reconciliation. This prelate accordingly wrote to the Novgorodians in the following terms. "The grand prince has acted wrong towards you, but he is sorry for it, desires you to forgive him, and will behave better for the future. I will be surety for him, and beseech you to receive him with honour and dignity *."

* Tooke's Russia, vol. i. p. 236.

59 Inroads of the Poles, &c.

During the intestine broils that attended the dismemberment of the Russian monarchy, the ambition of its neighbours, and partly the folly of the contending princes, who solicited their assistance against their rivals, contributed to diminish the strength and resources of the empire. In particular the Poles and the Hungarians availed themselves of these circumstances. Invited into Russia by the rival princes, and allured by the hope of plunder, they readily lent their aid to any of the parties. By ravaging the towns and villages, carrying off the captives into slavery, and making a prey of whatever appeared most useful, they quickly recompensed themselves for their assistance. The Poles seem to have been most successful in their depredations, and to have fully revenged themselves for their former humiliation.

60 Invasion of the Tartars.

It is not surprising that a state of anarchy and confusion, such as we have described, should hold out a temptation to any powerful nation to attempt at acquiring the dominion of a people who showed that they were incapable of governing themselves. Not far from the confines of Vladimir and Kief, viz. in the neighbourhood of the sea of Aral, the wandering hordes of Mongoles, or Mongol Tartars, had taken up their residence. These people appear to have descended from the ancient Scythians, and to have long dwelt on the confines of the Chinese empire. Hence they gradually marched westward, and about 1223 arrived on the shores of the sea of Aral, under the conduct of Tusehi, son of the famous Tschinghis Khan, chief of the Mogul empire, many of whose warlike exploits have been recounted under the article Mogul. From the Aral, Tuschi conducted his horde along the shores of the Caspian, and gradually approached the Dniepr. In his course he attacked and overcame the Tscherkesses, or Circassians, who on his approach had joined with the Polovtzes, to resist the terrible enemy. The defeated Polovtzes gave notice to their neighbours the Russians, of the approaching storm, and invited them to form a common cause against the enemy. In the mean time the Tartars had sent ambassadors to the Russians, hoping to prevent their alliance with the Polovtzes, and thus the more easily subdue the disunited nations. For this time, however, the Russians were true to their own interest, and proved firm to their alliance. In concert with the Polovtzes, they assembled an army, and prepared to resist the incursions of the Tartars. Both parties met near the small river Kalka, which flows into the sea of Asof, and a furious engagement took place. The Russians fought with great intrepidity, but the Polovtzes thrown into consternation at the furious onset of the Tartars, suddenly betook themselves to flight. As they formed the van-guard, their flight put the Russian army, which was drawn up behind them, into such complete disorder,

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disorder, that a total route ensued. The prince of Kief, who had kept himself aloof during the engagement, attempted to resist the victorious Tartars, but his army was attacked and defeated with great slaughter.

Had the princes who then shared among them the Russian territories firmly united against the common enemy, there is little doubt that they might have stemmed the torrent, which soon, from their state of rivalship and disunion, burst in and overwhelmed them. About 13 years after the defeat on the Kalka, another horde of Tartars, headed by Baaty Khan, the grandson of Tschinghis-khan, penetrated into Russia, after having attacked and defeated their neighbours the Bulgarians. The Tartars soon spread far and wide the terror of their name. Wherever they came, the whole face of nature was laid waste; towns and villages were destroyed by fire; all the men capable of bearing arms were put to the sword, and the children, women, and old men, carried into captivity. If the inhabitants of the towns to which they approached offered a compromise, the faithless barbarians affected to receive their submission; but immediately broke the agreement, and treated those who surrendered to their mercy with as much rigour as those who had endeavoured to defend themselves, and had been overcome. If the inhabitants of the open towns and villages came out to meet them, and to receive them as conquerors and friends; death, torture, or the most ignominious bondage, was the reward of their spontaneous submission.

The first state which they attacked was Riazan, the prince of which applied for assistance to Yury, commonly called by historians, George Sevoloditch, grand prince of Vladimir, who was then chief of the Russian princes. He sent them a few auxiliaries, but they either came too late, or their number was too small. The principality of Riazan fell, and its fall was succeeded by that of Pereiaslavl, Rostof, Susdal, and several others. Like a furious torrent rushing down the mountain's side, and irresistibly carrying with it all that impedes its progress, these barbarous hordes rolled their rapid course, carrying in their train fire and sword, ravages and desolation, torments and death, and sweeping all before them in one common devastation. They now approached the principality of Vladimir, and no army appeared to resist them on the frontiers. They advanced unimpeded to the capital, which, left to its fate by the grand prince, had nothing to expect, but the same cruel treatment which the neighbouring cities had received. Yury, with unpardonable negligence, was celebrating a marriage feast, when he ought to have been employed in collecting the means of defence against the enemy, of whose approach to his borders he had received timely intimation. The city of Vladimir, which contained the princess and two of her sons, was left to the protection of a chieftain, totally unqualified for its defence, and the inhabitants seemed to share the pusillanimity of their governor. Instead of annoying the enemy by occasional excursions, and preparing the means of defending the walls against a sudden attack, they gave themselves up to terror and despair; and as they conceived death to be inevitable, they prepared for it, by taking the habits of monks and nuns, in order to insure to themselves a blissful departure. A prey to fear and despondency, the city soon fell into the hands of the Tartars. They one morning scaled the walls, and meeting with little opposition, quickly made themselves masters of the place; when they cast aside every feeling of humanity, and like beasts of prey, glutted their appetite for blood among the wretched inhabitants. The grand princess, and other ladies of distinction, dreading the brutality of the relentless conquerors, had taken refuge in the choir of a church, an asylum which all the assurances of the Tartars that they should suffer no injury, could not prevail on them to abandon. It was therefore set on fire by the barbarians, who feasted their ears with the shrieks and groans of the women, as the flames surrounded them.

Yury, incensed almost to desperation, at the fate of his capital, and the horrible death of his wife and children, was determined to take signal vengeance on the assailants. He assembled all the forces which he could draw together, and though his army was greatly inferior in numbers to the Tartars, he marched against the enemy, and attacked them with the most determined valour. The struggle was short, but bloody; the Tartars were victorious, and the body of Yury was found among the slain.

This appears to have been the only vigorous stand made by the Russian princes. The Tartars pushed forward with rapidity, and successively overpowered the principalities of Novgorod and Kief. In the latter city they found immense booty; but this circumstance did not prevent them from repeating here the same bloody scenes which they had acted in the other capitals. The governor was preserved from the cruelties that had been inflicted on the inhabitants, by the courage he had displayed in defence of the city; and his noble demeanour, when he fell into the hands of the conqueror, acquired the esteem and affection of that chief, and enabled him to obtain a temporary repose to his country.

61 Succession of Russian princes under the Tartars.

The Tartars had now established themselves in the Russian territories, and their khan or chief, though he did not himself assume the nominal sovereignty, reigned as paramount lord, and placed on the throne any of the native princes whom he found most obsequious to his will, or who had ingratiated themselves by the magnificence of their presents. The throne was successively occupied by Yaroslaf II. Alexander Yaroslavitch, Yaroslaf Yaroslavitch, Vasilii Yaroslavitch, Dimitri Alexandrovitch, Andrei, Danül, both brothers of Dimitri, Mikaila Yaroslavitch, Yury Danilovitch, Alexander Mikailovitch, Ivan Danilovitch, Simeon Ivanovitch, and Ivan Ivanovitch.

62 St Alexander Neffsky.

Among the princes whom we have enumerated, we must particularly notice Alexander the son of Yaroslaf II. This prince was installed grand prince of Russia by the Tartar khan in 1252, and continued to reign till 1264. He is remarkable chiefly for a decisive victory gained by him over the Danes on the banks of the Neva;—a victory which procured him the honourable surname of Neffsky *(the conqueror)*. This victory is said to have taken place in 1239, while Alexander was governor of Novgorod, under his father Yaroslaf, who then reigned at Vladimir. After his accession to the throne on the death of his father, he engaged in a successful war with Sweden. This prince is held in great veneration by the Russians, and several miracles are attributed to him. In particular it is said, that when the prayer of absolution was offered to his corpse previous to interment (a practice long customary in Russia), the hand

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hand of the dead body opened to receive it. His reputation for sanctity occasioned him to be ranked among the tutelary saints of the Greek church, where he still holds a distinguished place, by the tile of St Alexander Neffsky.

63 Subjugation of Russia by the Poles.

During these several reigns, which all historians have passed over for want of records concerning them, the miseries of a foreign yoke were aggravated by all the calamities of intestine discord and war; whilst the knights of Livonia, or brothers of the short-sword, as they are sometimes called, a kind of military order of religious, on one side, and the Poles on the other, catching at the opportunity, attacked Russia, and took several of its towns, and even some considerable countries. The Tartars and Russians, whose interests were in this case the same, often united to oppose their common enemy; but were generally worsted. The Livonians took Pleskow, and the Poles made themselves masters of Black Russia, the Ukraine, Podolia, and the city of Kief. Casimir the Great, one of their kings, carried his conquests still farther. He asserted his pretensions to a part of Russia, in right of his relation to Boleslaus duke of Kalitz, who died without issue, and forcibly possessed himself of the duchies of Perzemyslia, Kalitz, and Luckow, and of the districts of Sanock, Lubakzow, and Trebowla; all which countries he made a province of Poland.

The newly-conquered Russians were ill-disposed to endure the government of the Poles, whose laws and customs were more contrary to their own than those of the Tartars had been. They joined the latter to rid themselves of the yoke, and assembled an army numerous enough to overwhelm all Poland, but destitute of valour and discipline. Casimir, undaunted by this deluge of barbarians, presented himself at the head of a few troops on the borders of the Vistula, and obliged his enemies to retire.

An. 1362. 64 Reign and successes of Dimitri Ivanovitch

About the year 1362 Dimitri Ivanovitch received the sovereignty from the Tartar chief, and established the seat of his government at Mosco. This prince possessed considerable ambition, and contrived to inspire the other Russian princes with so much respect for his person and government, that they consented to hold their principalities as fiefs under Dimitri. This increased the consequence of the Russian prince, excited the jealousy of Mammai the Tartar khan, who determined to take measures for maintaining his superiority. He began by demanding an increase of tribute, but when Dimitri seemed to demur at consenting to this new encroachment, the khan not only insisted on his demand, but required the grand prince to appear before him in person. This requisition Dimitri thought proper to refuse, and prepared to support his refusal by force of arms. The terror with which the Tartars had inspired the inhabitants of Russia had now considerably subsided, while the hatred which the Russians bore these haughty masters, was kept alive by the barbarity of their manners, and the difference of their religion. The Christian ministers, justly dreading that the Tartars, in their furious progress, might extirpate Christianity, contributed all in their power to confirm the spirit of revolt among the people; and they promised the crown of martyrdom to such as should fall in battle against the infidels. Thus, the contest into which the grand prince determined to enter in support of his authority, became in some measure a holy war, undertaken in defence of the national religion. This combination of favourable circumstances operated so strongly in favour of Dimitri, and the princes that had confederated with him, that they soon collected an army of 200,000 men. With this force the grand prince left Mosco, and marched towards the Don, on the southern bank of which the Tartars were encamped. Arrived at this river, he left it to the choice of his troops, either to cross the river, and encounter the enemy on the other side, or to await the attack where they were. The general voice declared for passing over to the assault. The grand prince accordingly transported his battalions across the river, that he might cut off all hope of escaping by retreat. The fight now commenced, and though the numbers of the foe far exceeded their own, the Russians defended themselves valiantly against the furious onset of the Tartars; but as these barbarians were continually relieved by fresh reinforcements, they appeared to be gaining ground. Indeed, nothing but the impossibility of retreating across the river, and the firm persuasion that death would immediately transport them to the mansions of eternal bliss, restrained the Russians from a general flight. At the moment when the day seemed entirely lost, a detachment of the grand prince's army which he had stationed in reserve, and had remained out of the view of the enemy, came up with unabated force, fell on the rear of the Tartars, threw them into such terror and confusion, that they fled with Mammai at their head, and left the Russians masters of the field. This contest must have been extremely bloody, as we are told that eight days were employed by the remains of the Russian army, in burying the bodies of their slaughtered companions, while those of the Tartars were left uninterred upon the ground.

This glorious victory, which took place in 1380, was attended with numerous advantages to the Russian cause. In particular, it taught the native princes that the Tartars were not unconquerable; that nothing was wanting to relieve them from the galling yoke under which they had long groaned, but mutual union, courage, and prudence. The Tartars appear to have been so much humbled by this defeat, that for a time they left the Russians to enjoy in peace their recovered liberty. This forbearance, however, was not of long duration. Before the death of Dimitri they returned with increased numbers, laid siege to Mosco, which, after an obstinate defence, was at length induced to surrender, and Russia once more submitted to her old masters.

An 1389. 65 Reign of Vasilii.

Dimitri died in 1389, and was succeeded by his son Vasilii Dimitrievitch. In the reign of this prince a new incursion of the Tartars took place, under the great Timur or Tamarlane, who after having subdued all the neighbouring Tartar hordes, extended his conquests to the Russian territories, carried Mosco by assault, and carried off immense plunder.

66 Comparative state of the Russian principalities at the end of the 14th century.

The grand principality of Vladimir, or as it may now be called, of Mosco, had, at the end of the 14th century, attained its greatest height, while that of Kief had proportionally declined. This latter principality was, at the time of which we are now writing, under the dominion of the Poles, having been seized on in 1320 by Gedemin, duke of Lithuania.

The latter end of the 15th century forms a splendid epoch in the Russian history. At this time, viz from 1462

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67 Accession of Ivan Vasiliivitch.

1462 to 1505, reigned Ivan Vasiliivitch, or, as he is commonly called, John Basilovitz. This able prince, by his invincible spirit and refined policy, became both the conqueror and deliverer of his country, and laid the first foundation of its future grandeur. Observing with indignation the narrow limits of his power at his accession to the throne, after the death of his father Vasiliis the Blind, he began immediately to resolve within himself the means of enlarging his dominions. Marriage, though he had in reality no regard or inclination for women, seemed to him one of the best expedients he could begin with; and accordingly he demanded and obtained Maria, sister of Michael duke of Twer, whom he soon after deposed, under pretence of revenging the injuries done to his father, and added this duchy to his own territories of Mosco. Maria, by whom he had a son named Ivan, who died before him, did not live long; and upon her death he married Sophia, daughter of Thomas Paleologus, who had been driven from Constantinople, and forced to seek shelter at Rome, where the Pope portioned this princess, in hopes of thus procuring great advantage to the Romish religion: but his expectations were frustrated, Sophia being obliged to conform to the Greek church after her arrival in Russia.

68 Incited by his wife to shake off the Tartar yoke.

What could induce Ivan to seek a consort at such a distance is nowhere accounted for, unless it be, that he hoped by this means to establish a pretension to the empire of the east, to which her father was the next heir; but however that may be, the Russians certainly owed to this alliance their deliverance from the Tartar yoke. Shocked at the servile homage exacted by these proud victors, her husband going to meet their ambassadors at some distance from the city, and standing to hear what they had to say, whilst they were at dinner; Sophia told him that she was surprised to find that she had married a servant to the Tartars. Nettled at this reproach, Ivan feigned himself ill when the next deputation from the Tartars arrived, and by means of this stratagem, avoided a repetition of the humiliating ceremonial. Another circumstance equally displeasing to this princess was, that the Tartars possessed by agreement within the walls of the palace at Mosco, houses in which their ministers resided, a stipulation which they had made, at once to shew their power, and watch the actions of the grand prince. To rid her husband and herself of these unpleasant neighbours, Sophia sent a formal embassy to the khan, to inform him, that as she had been favoured with a vision from above, commanding her to build a temple in the place where then stood the houses of the Tartar ministers, her mind could not be at ease till she had fulfilled the divine command; she therefore desired his leave to pull them down, and give his people others. The khan consented; the houses within the Kremlin (D) were demolished, and no new ones being provided, the Tartar residents were obliged to leave Mosco, an affront which their prince was not able to revenge, as he was then engaged in a war with the Poles.

69 His successes against the Tartars.

Ivan taking advantage of this circumstance, and having gradually increased his forces, now openly disclaimed all subjection to the Tartars, attacked their territories, and made himself master of Kazan. Here he was solemnly crowned with a diadem which is said to be the same that is still used in the coronation of the Russian sovereigns. This took place about the year 1470, and led to a complete emancipation of Russia from the Tartar dominion. Ivan afterwards carried his arms against the neighbouring states. The province of Permia, with Asiatic Bulgaria, and great part of Lapland, soon submitted to him, and the great Novgorod, a city then so famous that the Russians were accustomed to intimate their idea of its importance by the proverbial expression, Who can resist God and the great Novgorod? was reduced by his generals after a seven years siege, and yielded immense treasure. This place was so wealthy, that Alexander Witold, prince of Lithuania, to whom the Novgorodians were then tributary, derived from it a yearly contribution of 100,000 rubles. The booty carried off by Ivan to Mosco, is said to have consisted of 300 cart loads of gold, silver, and precious stones, with a much greater quantity of furs, cloths, and other merchandise. After he quitted the city, which had been awed by his presence, the discontents excited at his violent measures broke out into acts of mutiny, on which he, in 1485, carried off 50 of the principal families, and distributed them through several of the Russian towns. He afterwards carried off some thousands of the most considerable inhabitants, and replaced them by more loyal subjects from other places. By these proceedings the flourishing commerce of this city received a considerable shock, and it suffered still more by the imprisonment of all the German merchants, and the confiscation of their effects. Indeed from this period Novgorod never recovered its former splendour.

70 His invasion of Livonia and Esthonia.

After his reduction of Novgorod, Ivan invaded the territories of Livonia and Esthonia, in consequence, as we are told, of an affront offered to him by the inhabitants of Reval. Here, however, he met with a stout resistance, and does not seem to have made much progress. Towards the conclusion of his reign, the Kazanian Tartars, who, though humbled, had continued to inhabit that district, made a hard struggle to shake off the Russian yoke that had been imposed on them; but Ivan had established his authority too firmly for them to accomplish their purpose during his life. He died in 1505, and was succeeded by his son Vasilii Ivanovitch, commonly called Basilius III.

An. 1505. 71 Reign of Vasilii II.

The Tartars of Kazan were still suffered to maintain a shew of independency, by electing their own khans; but a Russian noble, under the denomination of voivode was associated with the khan in the government, and took care that the administration should be conducted in such a manner as to secure the interests of his master. About 14 years after the death of Ivan, however, the Tartars resolved to overturn so humiliating an administration. They murdered the Russian voivode, expelled their nominal khan, and united themselves with their brethren of the Crimea. With their assistance they assembled a mighty force, entered the Russian dominions, and carried their arms even to the gates of Mosco. The grand prince Vasilii found himself at that time unable

(D) The Kremlin is a quarter of Mosco, where stands the palace of the tzars, first built of stone by Dimitri Ivanovitch Dowski in 1367. See Mosco.

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unable to resist the barbarians, and therefore purchased an exemption from general pillage by great presents, and a promise of renewed allegiance. The Tartars retired, but carried off immense booty, and nearly 300,000 prisoners, the greater part of whom they sent to Theodosia in the Crimea, and sold them to the Turks. This humiliation of Vasilii did not, however, long continue, and he was soon enabled to make head against the Tartars, and to recover possession of the city Kazan, and of Pscove, a city which had been built by the princess Olga, and was the great rival of Novgorod in wealth and commercial importance. Under this prince all the principalities of Russia were once more united, and they have remained ever since under the dominion of one sovereign.

An. 1533. 72 Ivan Vasilivitch II.

It was under the son and successor of Vasilii, Ivan IV. or, as he is styled by the Russian historians, Ivan Vasiliivitch II. that Russia completely emancipated herself from her subjection to the Tartars, and acquired a vast accession of territory, which extended her empire into the north-east of Asia, and rendered her for the first time, superior in extent to any state that had appeared since the Roman empire. Vasilii died in 1533, having reigned 28 years, and lived 55. His son Ivan was only three years old when he succeeded to the throne, and the queen-mother was appointed regent during his minority. During her administration the state became a prey to anarchy and confusion. She seems to have had no talents for government, and devoted herself entirely to the pursuit of pleasure, so that the ambitious nobles, and in particular the uncles of the young prince, had the most favourable opportunity for aggrandizing themselves at the expence of the sovereign. The queen mother died in 1538; and though the names and characters of those who assumed the regency after her death are not known, it appears that they must have conducted the administration with considerable prudence and circumspection, as, when Ivan attained his 17th year, he was enabled to assume the reins of government without opposition; and from the important transactions in which he immediately engaged, must have been possessed of considerable resources.

An. 1547 73 His character.

In taking into his own hands the government of the state, Ivan displayed so much prudence and manly fortitude as soon raised him very high in the estimation of his subjects. At the same time he shewed marks of a tyrannical disposition, and irritability of temper, which made him rather feared than admired by his friends, while they rendered him an object of terror to his neighbours and his enemies. He saw himself surrounded on all sides by contending factions, and to suppress these was the first object of his care. In the choice of means for effecting this, he does not seem to have been very scrupulous, provided they tended to the accomplishment of his aim; and in punishing the offences of those who opposed his purpose, his violence of temper not unfrequently led him to confound the innocent with the guilty. He was, however, successful in his great design, and having secured the domestic tranquillity of his dominions, he had leisure to direct his attention to the more remote, but not less predominant objects of his ambition. He resolved to attempt liberating his country for ever from the dominion of the Tartars, and he succeeded. In 1551, he marched an army in the depth of winter into the district of Kazan, and laid siege to the capital, regardless of the murmurs of his troops, who loudly and openly expressed their dislike to this expedition, declaring that no good commander would think of conducting his forces to sieges and battles during the inclemencies of winter, or attempt at such a season to attack the enemy in their quarters. Exasperated at these murmurs, he determined to punish severely the principal officers who had contributed to foment the discontents of the soldiers, and by this well-timed severity he effectually repressed all opposition to his will.

74 His siege of the Tartar capital.

Before entering seriously on the siege of Kazan, he built several forts on the frontiers of the Tartar territories, by which he hoped to awe these barbarians, and prevent them from disturbing the peace of his dominions. He then invested Kazan, and in the year 1552, made himself master of it by the new, and, to the Tartars, unheard-of method of springing a mine below the walls. We are told by some historians, that the city had made an obstinate defence, and that, during the siege, which lasted above seven years, another alarming mutiny broke out in the besieging army; that Ivan was in great danger of his life, and was obliged for a time to abandon the enterprise, and retire to Mosco, where he made an example of the chief mutineers, and again returned to the siege of Kazan. How far this statement is to be relied on, it is difficult now to determine; but perhaps this mutiny is confounded with that which we have already noticed, as having taken place at the commencement of the enterprise.

As Kazan was taken by storm, the inhabitants were treated with much rigour; and the slaughter was so dreadful, that even the flinty heart of Ivan is said to have relented at the heaps of dead bodies which struck his sight on entering the city. The inhabitants that escaped slaughter, and the remains of the Tartars, were offered mercy on condition that they should embrace the Christian faith. By this important conquest the dominion of the Tartars, which had oppressed the Russians for more than three centuries, was completely and permanently overthrown.

75 His extension of the Russian territories.

About two years after he had abolished the power of the Tartars, he extended his conquests eastward to the shores of the Caspian, and took possession of the territory that lay on the right bank of the Volga, round the city of Astracan, which was also inhabited by the Tartar hordes.

76 His severe treatment of Novgorod.

Ivan, as well as his grandfather, had found it necessary to chastise the inhabitants of Novgorod; but in the year 1570, this city being suspected of forming a plot for delivering itself and the surrounding territory into the hands of the king of Poland, felt still more severely the effects of his vengeance. All who had been in any degree implicated in the conspiracy, to the number of 25,000, suffered by the hands of the executioner. The city of Pscove was threatened with a similar proscription; but Ivan, on their voluntary submission, contented himself with the execution of a few monks, and the confiscation of the property of the most opulent inhabitants. It is not surprising that acts like these should have given to this prince the names of *terrible* and *tyrant*, by which historians have occasionally distinguished him; though it is not a little extraordinary, that he should

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should have retained so much interest in the affections of his subjects, that when, to try their attachment, he, in 1575, abdicated the government, and retained only the title of Prince of Mosco, the majority of the nation loudly expressed their wish for him to resume the administration of affairs. We can account for this, only by considering the measures which he had adopted for the improvement and civilization of his people. These were of such a nature as in a great measure to obliterate the remembrance of his cruelty and oppression. He promulgated a new code of laws, composed partly of such ancient statutes as still were in force, and were capable of improvement, and partly of new regulations, which he either contrived himself, or adopted from the neighbouring states. He found it necessary, however, to render many of these laws extremely severe, though their execution was most frequently exemplified in the persons of his nobles, whose perverseness and obstinacy seemed unconquerable by more lenient measures.

77 Cultivates an intercourse with the neighbouring states.

Ivan cultivated an intercourse with several of the European states, especially with Germany, for which country he seems to have had a very particular esteem. Early in his reign, viz. in 1547, he sent a splendid embassy to the emperor Charles V. requesting him to permit a number of German artists, mechanics, and literary men, to establish themselves in Russia. Charles readily complied with his request, and several hundred volunteers were collected and assembled at Lubeck, whence they were to proceed through Livonia to Mosco. The Lubeckers, however, jealous that the improvement of the Russians in arts and manufactures might render them independent of their neighbours, and diminish the commercial intercourse that had long subsisted between their city and the principal towns of Russia, arrested the Germans in their route, and in concert with the merchants of Reval and Riga, sent a petition to Charles, requesting him to recal the permission he had granted. In consequence of these measures, many of the German artists returned home, but several of them escaped the vigilance of the Lubeckers, and reached Mosco by a circuitous route. Ivan endeavoured to revenge himself on the Livonians by invading their country. This was strenuously defended by the Teutonic knights; and these champions, finding at last that they were unable to maintain their ground, rather than submit to the Russian monarch, put their country under the protection of Poland.

78 War between the Russians and Swedes.

The Swedes also came in for a share of the Livonian territories; and this circumstance gave rise to a war between them and the Russians. Ivan invaded Finland; but that country was bravely defended by William of Furstenberg, grand master of the Livonian knights, with the assistance of the troops of Gustavus Vaza; and it does not appear that Ivan gained much in this expedition, though we are told that the Livonian grand master ended his life in a Russian prison.

An. 1553. 79 First intercourse between England and Russia.

In 1553, an event happened which first led to an intercourse between Russia and England. Some Englishmen who were at that time on a voyage of discovery, landed on the shores of the White sea, where soon after was built the port of Archangel. They were hospitably received by the natives; and intimation of the circumstance being conveyed to Ivan, he sent for the strangers, and was so much pleased with their abilities and deportment, that he resolved to give every encouragement to the English commerce, and thus open a new channel of intercourse with a highly polished nation, by which his subjects might obtain fresh incitements to activity and industry. We are told, that his affection for the English proceeded so far, as to induce him to form the design of marrying an English lady. He expressed the highest esteem for Queen Elizabeth, and requested by his ambassador, that if the ingratitude of his subjects should ever compel him to quit Russia, (a circumstance by no means improbable), she would grant him an asylum in her dominions. It was in consequence of this accidental communication between the Russians and the English, that England first engaged in a trade to Russia, and promoted this new commerce by the establishment of a company of Russia merchants in London.

80 Ivan annexes Siberia to the Russian empire.

About twenty years after Astracan had been annexed to the Russian empire, a new acquisition of territory accrued to it from the conquests of a private adventurer, in the unknown regions of Siberia. The steps that led to the acquisition of this immense tract of the Asiatic continent, are thus related by Mr Tooke.

"The grand prince, Ivan III. had already sent out a body of men who penetrated across the Ingrian mountains, and traversed all the districts as far as the river Oby. But, amidst the urgent affairs of government, the discoveries they made insensibly fell into oblivion. Some years afterwards a merchant, named Stroganof, who was proprietor of some salt-works on the confines of Siberia, was curious to gain a farther knowledge of that country, which was likewise inhabited by Tartars, whose khan resided in the capital Sibir. Perceiving, among the persons who came to him on affairs of trade, men who belonged to no nation with which he was acquainted, he put several inquiries to them concerning the place whence they came, and once sent a few of his people with them back to their country. These people brought with them, at their return from the regions they had now explored, and which proved to be this very Siberia, a great quantity of invaluable furs, and thus opened to their master a new road to wealth. However, not so covetous as to wish to keep this treasure to himself, he sent information of it to the court, and the attention of government was once more directed to this country. But the conquest of it, and its conjunction with Russia, was reserved for an adventurer named Timoseyef Yermak. This Yermak, at the head of a gang of Don Zozaks, had made it his practice to rob and plunder the caravans and passengers that occasionally frequented the roads, as well as the inhabitants, wherever he came, and was so fortunate as to escape the search of the Russian troops that had been sent out against him and his band, which consisted of not fewer than 6000 men. On their flight, he and his people accidentally came to the dwelling of Stroganof, where, hearing much talk about Siberia, and being persons who had nothing to lose, and therefore might put all to the hazard, they soon formed a plan to penetrate farther into that country, and there seek at once their safety and their fortune. After numerous struggles and conflicts with the natives, which greatly reduced their numbers, they at length conquered the capital, and shortly after the whole country. Yermak now presented the fruit

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fruit of his toilsome and perilous victories to his tzar, (E) Ivan, in hopes of obtaining thereby, a pardon of his former depredations, which was granted him accordingly, by the building of several towns, and constructing a number of forts, the possession of this country was soon permanently secured. The less and the greater Kabardey were also added to Russia in the reign of Ivan. This tzar, however, not only enlarged the circumference of his empire, partly by force of arms and partly by accident, but he resolved to reform his people, to render them more polished, more skilful, and industrious; but this he found to be the most arduous enterprise he could possibly have undertaken. The insuperable impediments which threw themselves in the way of the execution of this grand work, were the principal incitements to those frequent acts of cruelty and despotism which have covered his memory with so deep a stain."

81 His victories over the Tartars.

Towards the close of Ivan's reign, a prodigious army of Turks and Tartars entered Russia, with a design to subdue the whole country. But Zerebrinoff, the tzar's general, having attacked them in a defile, put them to flight with considerable slaughter. They then retired towards the mouth of the Volga, where they expected a considerable reinforcement; but being closely pursued by the Russians and Tartars in alliance with them, they were again defeated and forced to fly towards Azof on the Black sea. But when they came there, they found the city almost entirely ruined by the blowing up of a powder magazine. The Russians then attacked their ships there, took some and sunk the rest; by which means almost the whole army perished with hunger or by the sword of the enemy.

82 Destruction of Mosco by the Tartars.

From this time the empire of Russia became so formidable, that none of the neighbouring nations could hope to make a total conquest of it. The Poles and Swedes indeed continued to be very formidable enemies; and, by the instigation of the former, the Crim Tartars, in 1571, again invaded the country with an army of 70,000 men. The Russians, who might have prevented their passing the Volga, retired before them till they came within 18 miles of the city of Mosco, where they were totally defeated. The tzar no sooner heard this news, than he retired with his most valuable effects to a well-fortified cloyster; upon which the Tartars entered the city, plundered it, and set fire to several churches. A violent storm which happened at the same time soon spread the flames all over the city; which was entirely reduced to ashes in six hours, though its circumference was upwards of 40 miles. The fire likewise communicated itself to a powder magazine at some distance from the city; by which accident upwards of 50 rods of the city wall, with all the buildings upon it, were destroyed; and, according to the best historians, upwards of 120,000 citizens were burnt or buried in the ruins, besides women, children, and foreigners. The castle, however, which was strongly fortified, could not be taken; and the Tartars, hearing that a formidable army was coming against them under the command of Magnus duke of Holstein, whom Ivan had made king of Livonia, thought proper to retire. The war, nevertheless, continued with the Poles and Swedes; and the tzar being defeated by the latter after some trifling success, was reduced to the necessity of suing for peace; but the negociations being broken off, the war was renewed with the greatest vigour. The Livonians, Poles, and Swedes, having united in a league against the Russians, gained great advatages over them; and in 1579, Stephen Battori, who was then raised to the throne of Poland, levied an army expressly with a design of invading Russia, and of regaining all that Poland had formerly claimed, which indeed was little less than the whole empire. As the Poles understood the art of war much better than the Russians, Ivan found his undisciplined multitudes unable to cope with the regular forces of his enemies; and their conquests were so rapid, that he was soon obliged to sue for peace, which, however, was not granted; and it is possible that the number of enemies which now attacked Russia might have overcome the empire entirely, had not the allies grown jealous of each other. The consequence of this was, that in 1582 a peace was concluded with the Poles, in which the Swedes were not comprehended. However, the Swedes finding themselves unable to effect any thing of moment after the desertion of their allies, were obliged to conclude a truce; shortly after which the tzar having been worsted in an engagement with the Tartars, died in the year 1584.

An. 1584. 83 Reign of Feodor Ivanovitch.

The eldest son of the late tzar, Feodor (or as he is commonly called, Theodore) Ivanovitch, was by no means fitted for the government of an empire so extensive, and a people so rude and turbulent as had devolved to him by the death of his father. Ivan had seen the incapacity of his son, and had endeavoured to obviate its effects, by appointing three of his principal nobles as administrators of the empire; while to a fourth he committed the charge of his younger son Dimitri. This expedient, however, failed of success; and partly from the mutual jealousy of the administrators, partly from the envy which their exaltation had excited in the other nobles, the affairs of the empire soon fell into confusion. The weak Feodor, had married a sister of Boris Gudonof, a man of considerable ambition, immense riches, and tolerable abilities. This man had contrived to make himself agreeable to Feodor, by becoming subservient to his capricious desires and childish amusements: and the wealth he had acquired through his interest with the sovereign, enabled him to carry on his ambitious designs. He had long directed his wishes towards the imperial dignity, and he began to prepare the way for its attainment by removing Dimitri the brother of Feodor. This young prince suddenly disappeared; and there is every reason

(E) Previous to the reign of Vasilii, the predecessor of the monarch whose transactions we are now relating, the Russian sovereigns held the title of Velikii Kniaz, which has been translated great duke, though it more properly denotes grand prince; and by this latter appellation we have accordingly distinguished the preceding monarchs. Vasilii, near the conclusion of his reign, adopted the title of tzar, or emperor; but this title was not fully established till the successes and increasing power of his son Ivan enabled the latter to confirm it both at home and abroad: and since his time it has been universally acknowledged.

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reason to believe that he was assassinated by the order of Boris. Feodor did not long survive his brother, but died in 1598, not without suspicion of his having been poisoned by his brother-in-law. We are told that the tzaritza, Irene, was so much convinced of this, that she never after held any communication with her brother, but retired to a convent, and assumed the name of Alexandria.

84 Accession of Boris, and termination of the dynasty of Ruric.

With Feodor ended the last branch of the family of Ruric, a dynasty which had enjoyed the supreme power in Russia ever since the establishment of the principality by the Varagian chief, viz. during a period of above 700 years. On the death of Feodor, as there was no hereditary successor to the vacant throne, the nobles assembled to elect a new tzar; and the artful Boris having, through the interest of the patriarch, a man elevated by his means, and devoted to his views, procured a majority in his favour, he was declared the object of their choice. Boris pretended unwillingness to accept the crown, declaring that he had resolved to live and die in a monastery; but when the patriarch, at the head of the principal nobles, and attended by a great concourse of people, bearing before them the cross, and the effigies of several saints, repaired to the convent, where the artful usurper had taken up his residence, he was at length *prevailed* on to accompany them to the palace of the tzars, and *suffer* himself to be crowned.

Boris affords another example, in addition to the numerous instances recorded in history, of a sovereign who became beneficial to his subjects, though he had procured the sovereignty by unjustifiable means. If we give implicit credit to the historians of those times, Boris was a murderer and a usurper, though he had the voice of the people in his favour; but by whatever means he attained the imperial power, he seems to have employed it in advancing the interests of the nation, and in improving the circumstances of his people. He was extremely active in his endeavours to extend the commerce, and improve the arts and manufactures of the Russian empire; and for this purpose he invited many foreigners into his dominions. While he exerted himself in securing the tranquillity of the country, and defending its frontiers by forts and ramparts, against the incursions of his neighbours, he made himself respected abroad, received ambassadors from almost all the powers of Europe; and after several attempts to enlarge his territories at the expence of Sweden, he concluded with that kingdom an honourable and advantageous alliance.

An. 1601. 85 Dreadful famine at Mosco.

Soon after the commencement of his reign, the city of Mosco was desolated by one of the most dreadful famines recorded in history. Thousands of people lay dead in the streets and roads; and in many houses the fattest of their inmates was killed, to serve as food for the rest. Parents are said to have eaten their children, and children their parents; and we are told by one of the writers of that time (Petrius), that he saw a woman bite several pieces out of her child's arm as she was carrying it along. Another relates, that four women having desired a peasant to come to one of their houses, on pretence of paying him for some wood, killed and devoured both him and his horse. This dreadful calamity lasted three years; and notwithstanding all the exertions of Boris to provide for the necessities of the inhabitants of Mosco, we are assured that not fewer than 500,000 perished by the famine.

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86 Invasion of the pretender Dimitri.

During these distresses of the capital, the power of Boris was threatened with annihilation by an adventurer who suddenly started up, and pretended to be the young prince Dimitri, whom all believed to have been assassinated, or, as Boris had given out, to have died of a malignant fever. This adventurer was a monk named Otrepief, who learning that he greatly resembled the late Dimitri, conceived the project of passing for that prince, and endeavouring, in that character, to ascend the Russian throne. He retired from Russia into Poland, where he had the dexterity to ingratiate himself with some of the principal nobles, and persuade them that he was really prince Dimitri, the lawful heir to the crown of Russia. The better to insure to himself the support of the Poles, he learned their language, and professed a great regard for the Catholic religion. By this last artifice he both gained the attachment of the Catholic Poles, and acquired the friendship of the Roman pontiff, whose blessing and patronage in his great undertaking he farther secured, by promising that, as soon as he should have established himself on the throne, he would make every exertion to bring the Russians within the pale of the Catholic church. To the external graces of a fine person, the pretended Dimitri added the charms of irresistible eloquence; and by these accomplishments he won the affections of many of the most powerful among the Polish nobility. In particular the voivode of Sendomir was so much captivated by his address, that he not only espoused his cause, but promised to give him his daughter in marriage, as soon as he should be placed on the throne of his fathers. This respectable man exerted himself so warmly in behalf of his intended son-in-law, that he brought over even the king of Poland to his party. The Kozaks of the Don, who were oppressed by Boris, hoped to gain at least a temporary advantage by the disturbance excited in favour of the adventurer, and eagerly embraced the opportunity of declaring in his favour. The news of Prince Dimitri being still alive, soon penetrated into Russia; and though Boris did all in his power to destroy the illusion, by prohibiting all intercourse between his subjects and the Poles, and by appealing to the evidence of the murdered prince's mother in proof of his death, the cause of the pretender continued to gain ground. Many circumstances concurred to interest the Russian people in favour of Otrepief. He had prepared a manifesto, which he caused to be dispersed through the empire, and in which he affirmed himself to be the son of Ivan, and asserted his right to the throne then usurped by Boris. The courtiers of the usurper, who had long been jealous of his elevation, pretended to believe these assertions; while those who were persuaded that the young prince had been murdered by order of the present tzar, regarded this event as a judgment from heaven. The greater part of the nation appear to have been persuaded, that the pretender was the real Dimitri; and as they believed that he had been miraculously preserved, they piously resolved to concur with the hand of Providence in assisting him to recover his just rights. Thus, before he set foot in Russia, a numerous party was formed in his behalf. He soon made his appearance on the frontiers with a regiment of Polish troops, and a body of Kozaks. Boris sent an army

to

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to oppose him; but though the number of these troops greatly exceeded the small force of Dimitri, these latter were so animated by the eloquence of their leader, and the intrepidity and personal bravery which he displayed in the field of battle, that, after a bloody conflict, the army of Boris was defeated, and the pretended Dimitri remained master of the field.

87 His success.

This victory, over a superior army, served still further to strengthen the belief, that Dimitri was favoured by heaven, and consequently could not be an impostor. To confirm the good opinion which he had evidently acquired, the victor treated his prisoners with great kindness; caused the dead to be decently interred, and gave strict injunctions to his troops to behave with humanity in the towns through which he passed. This gentle behaviour, when contrasted with the horrible excesses committed by the soldiers of Boris, wherever the people appeared to shew any inclination towards the cause of the invader, gained Dimitri more adherents than even the persuasion that he was the lawful sovereign of the country. Unluckily for Boris, the superstition of the Russians was about this time directed against him, by the appearance of a comet, and by more than usual coruscations of the aurora borealis, phenomena which were immediately regarded as manifest demonstrations that the Almighty was pouring out his phials of wrath on the devoted country. It was almost universally believed, that the awful effects of these alarming appearances could be averted only by supporting the cause of Dimitri, who had hitherto been so signally protected, and brought to light by the hand of heaven. Boris, unable to resist the torrent of public opinion in favour of his rival, is said to have taken poison, and thus hastened that fate which he foresaw awaited him, if he should fall into the hands of his enemies.

An. 1605.

The death of Boris took place in the year 1605; and though the principal nobility at Mosco placed his son Feodor on the throne, the party of Dimitri was now so strong, that Feodor was dethroned and sent to prison with his mother and sister, within six weeks after his accession.

88 He ascends the Russian throne.

The successful monk had now attained the summit of his ambitious hopes, and made his entry into Mosco with the utmost magnificence, attended by his Russian adherents, and his Polish friends. Not deeming himself secure, however, while the son of Boris remained alive, he is said to have caused him to be strangled, together with one of his sisters. The new tzar, though he evidently possessed great abilities, seems to have been deficient in point of prudence. Instead of conciliating the favour of his subjects, by attention to their interests, and by conferring on the chief men among them the titles and honours that were at his disposal, he openly displayed his predilection for the Poles, on whom he conferred high posts and dignities, and even connived at the extravagance and enormities which they committed. This impolitic conduct, together with his partiality for the Catholic religion; his marked indifference towards the public worship of the national church, and his want of reverence for the Greek clergy; his marrying a Polish lady; his affectation of Polish manners; his inordinate voluptuousness, and the contempt with which he treated the principal nobility; so irritated and exasperated the Russians, that discontents and insurrections arose in every quarter of the empire; and the joy with which he had been at first received, was converted into indifference, contempt, and detestation. The Russians soon discovered, from a curious circumstance, that their new sovereign could not be sprung from the blood of their ancient tzars. These had been always lifted on their horses, and rode along with a slow and solemn pace, whereas Dimitri bestrod a furious stallion, which he mounted without the help of his attendants. In addition to these sources of discontent, it was rumoured that a timber fort which Dimitri had caused to be constructed before Mosco, was intended to serve as an engine of destruction to the inhabitants, and that at a martial spectacle which the tzar was preparing for the entertainment of his bride, the Poles, and other foreigners that composed his body guard, were, from this building, to cast firebrands into the city, and then slaughter the inhabitants. This rumour increased their hatred to fury, and they resolved to wreak their vengeance on the devoted tzar. The populace were still farther incensed by the clergy, who declaimed against Dimitri as a heretic, and by Schuiskoy, a nobleman who had been condemned to death by the tzar, but had afterwards been pardoned. This nobleman put himself at the head of the enraged mob, and led them to attack the tzarian palace. This they entered by assault, put to the sword all the Poles whom they found within its walls, and afterwards extended their massacre to such as were discovered in other parts of the city. Dimitri himself, in attempting to escape, was overtaken by his pursuers, and thrust through with a spear, and his dead body being brought back into the city, lay for three days before the palace, exposed to every insult and outrage that malice could invent, or rage inflict. His father-in-law and his wife escaped with their lives, but were detained as prisoners, and the tzaritza was confined at Yaroslavl.

89 Unsettled state of Russia.

Schuiskoy, who had pretended to be actuated by no other motives than the purest patriotism, now aspired to the vacant throne, and had sufficient interest to carry his election. His reign was short and uninteresting, and indeed from this time till the accession of the house of Romanof in 1613, the affairs of Russia have little to gratify the curiosity of our readers. Schuiskoy's short reign was disturbed by the pretensions of two fictitious Dimitris, who successively started up, and declared themselves to be either the late tzar, or the prince whom he had personated; and his neighbours the Swedes and Poles, taking advantage of the internal dissensions in the empire, made many successful incursions into Russia, set fire to Mosco, and massacred above 100,000 of the people. The Russians, dissatisfied with the reigning prince, treated with several of the neighbouring potentates for the disposal of the imperial crown. They offered it to Vladislaf, or Uladislaus, son of Sigismund, king of Poland, on condition that he should adopt the Greek persuasion; but as he rejected this preliminary, they turned their eyes, first on a son of Charles IX. of Sweden, and lastly, on a young native Russian, Mikhail Feodorovitch, of the house of Romanof, a family distantly related to their ancient tzars, and of which the head was then metropolitan of Rostof, and was held in great estimation. Thus, after a long series of confusion and disaster, there ascended the Russian throne a

new family, whose descendants have raised the empire to a state of grandeur and importance unequalled in any former period.

We have seen the calamities brought upon the empire by the partitions of its early monarchs, and the wars to which these partitions gave birth; by the invasions and tyranny of the Tartars; and lastly, by the disturbances that prevailed from the machinations of the false Dimitris. We have observed the depression which the empire suffered under these calamities. We are now to witness its sudden elevation among the powers of Europe, and to accompany it in its hasty strides towards that importance which it has lately assumed. But before we enter on the transactions that have enriched the pages of the Russian annals since the accession of the house of Romanof, it may not be improper or uninteresting, to take a general view of the state of the empire at the beginning of the 17th century.

90 State of the Russian empire at the beginning of the 17th century.

At this period the government of Russia may be considered as a pure aristocracy, as all the supreme power rested in the hands of the nobles and the superior clergy. In particular the boyars, or chief officers of the army, who were also the privy counsellors of the prince, possessed a very considerable share of authority. The election of the late princes Boris, Dimitri, and Schuiskoy, had been conducted principally by them, in concert with the inhabitants of Mosco, where was then held the seat of government. The common people, especially those of the inferior towns, though nominally free, had no share in the government, or in the election of the chief ruler. The boors, or those peasants who dwelt on the noblemen's estates, were almost completely slaves, and transferable with the land on which they dwelt. An attempt to do away this barbarous vassalage had been made, both by Boris and Schuiskoy, but from the opposition of the nobles it was abandoned.

The laws in force at the time of which we are now speaking, consisted partly of the municipal laws drawn up for the state of Novgorod by Yaroslaf, and partly of an amended code, called *sudebnik*, promulgated by Ivan Vasiliivitch II. By this sudebnik the administration of the laws was made uniform throughout the empire, and particular magistrates were appointed in the several towns and districts, all subject to the tzar as their chief. The sudebnik consisted of 97 articles, all containing civil laws, as the penal statutes are only briefly mentioned in some articles, so as to appear either connected with the civil, or as serving to illustrate them. The criminal laws were contained in a separate code, called *gubnaia gramota*, which is now lost, but is referred to in the civil code. In neither of these codes is there any mention of ecclesiastical affairs; but these were regulated by a set of canons drawn up in 1542, under the inspection of Ivan Vasiliivitch, in a grand council held at Mosco. In the civil statutes of the sudebnik, theft was punished in the first instance by restitution, or, if the thief were unable to restore the property stolen, he became the slave of the injured party, till by his labour he had made sufficient compensation. Of murder nothing is said, except where the person slain was a lord or master, when the murderer was to be punished with death. There is no mention of torture, except in cases of theft.

Before the accession of the house of Romanof, the commercial intercourse which the cities of Novgorod and Pscove formerly held with the Hans towns, had entirely ceased; but this was in some degree compensated by the newly established trade between Russia and England, the centre of which was Archangel. This trade had been lately increased by the products derived from the acquisition of Siberia, in exchange for which the English principally supplied the Russians with broad cloth. In 1568, an English counting-house was established at Mosco, and about the same time the Russian company was incorporated. Previous to the 15th century, the trade of the Russians had been carried on merely by barter, but during that century the coinage of money commenced at Novgorod and Pscove; and from this time their commerce was placed on an equal footing with that of the other European nations.

Except in the article of commerce, the Russians were deplorably behind the rest of Europe; and though attempts had been made by Ivan I. Ivan Vasiliivitch II. and Boris, to cultivate their manners and improve the state of their arts and manufactures, these attempts had failed of success. The following characteristic features of the state of Russia in the 16th century, are given by Mr Tooke.

The houses were in general of timber, and badly constructed, except that in Mosco and other great towns, there were a few houses built of brick.

That contempt for the female sex, which is invariably a characteristic of defective civilization, was conspicuous among the Russians. The women were kept in a state of perfect bondage, and it was thought a great instance of liberality, if a stranger were but permitted to see them. They durst seldom go to church, though attendance on divine worship was considered of the highest importance. They were constantly required to be within doors, so that they very seldom enjoyed the fresh air.

The men of the middle ranks always repaired about noon to the market, where they transacted business together, conversed about public affairs, and attended the courts of judicature to hear the causes that were going forward. This was undoubtedly a practice productive of much good, as the inhabitants of the towns by these means improved their acquaintance, interchanged the knowledge they had acquired, and thus their patriotic affections were nourished and invigorated.

In agreements and bargains the highest asseveration was, "If I keep not my word, may it turn to my infamy," a custom extremely honourable to the Russians of those days, as they held the disgrace of having forfeited their word to be the deepest degradation.

If the wife was so dependent on her husband, the child was still more dependent on his father; for parents were allowed to sell their children.

Masters and servants entered into a mutual contract respecting the terms of their connection, and a written copy of this contract was deposited in the proper court, where, if either party broke the contract, the other might lodge his complaint.

Single combat still continued to be the last resource in deciding a cause; and to this the judge resorted in cases which he knew not otherwise to determine: but duels out of court were strictly prohibited; and when these took place, and either party fell, the survivor was regarded

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regarded as a murderer, and punished accordingly. Personal vengeance was forbidden under the strictest penalties.

The nobles were universally soldiers, and were obliged to appear when summoned, to assist the prince in his wars.

Till the end of the 16th century, the boor was not bound to any particular master. He tilled the ground of a nobleman for a certain time on stated conditions. Thus, he either received part of the harvest or of the cattle, a portion of wood, hay, &c ; or he worked five days for the master, and on the sixth was at liberty to till a piece of ground set apart for his use. At the expiration of the term agreed on, either party might give up the contract to the other; the boor might remove to another master, and the master dismiss the boor that did not suit him.

91 Circumstances that led to the election of Mikhail Romanof.

During the troubles and dissensions in which the empire had been involved, since the death of Feodor Ivanovitch, the chief men of the state were divided into several parties. Of these, one sought to elevate to the throne a Polish prince, while another rather favoured the succession of a Swede. A third, and by far the strongest party, were desirous to place upon the throne a native Russian; and they soon turned their eyes on Mikhail Romanof, a distant relation of the ancient family of the tzars, whose father was metropolitan of Rostof. The clergy seemed particularly interested in this choice, as they justly concluded, that a Russian born and brought up in the orthodox Greek faith, would most effectually prevent the poison of Catholic opinions or Protestant heresy, the introduction of which was to be feared from the accession of a Polish or a Swedish monarch. Accordingly, the voice of a single ecclesiastic decided the electors in favour of Mikhail. A metropolitan declared in the hall of election, that it had been announced to him by divine revelation, that the young Romanof would prove the most fortunate and prosperous of all the tzars who had filled the Russian throne. This revelation had an immediate effect on the electors, as their reverence for the superior clergy was so great, that none could presume to doubt the veracity of a person of such exalted rank and sacred function. The revelation once made public, the people too expressed so decidedly their desire to have the young Romanof for their sovereign, that all soon united in their choice. The young man himself, however, refused the proffered honour, and his mother, dreading the fate that might arise from so dangerous an elevation, with tears implored the deputies to depart. The modest refusal of Mikhail served only to persuade the people, that he was the most worthy object on which they could fix their choice; and at length the deputies returned to Mosco, bringing with them the consent of the monarch elect. The coronation took place on the 11th of June 1613, and thus the views of Poland and of Sweden, as well as the designs of Marina, the widow of the first pretender Dimitri, who still contrived to keep a party in her favour, were entirely frustrated.

An. 1613. 92 He makes peace with the Swedes and Poles.

At the accession of Mikhail, the Swedes and Poles were in possession of several parts of the empire; and to dislodge these invaders was the first object of the new tzar. Aware of the difficulty of contending at once with both these formidable enemies, he began by negociating a treaty of peace with Sweden. This was not effected without considerable sacrifices. Mikhail agreed to give up Ingria and Karilii, and to evacuate Esthonia and Livonia. Thus freed from his most dangerous enemy, Mikhail prepared to oppose the Poles, of whom a numerous body had entered Russia, to support the claims of their king's son, Vladislaf. Mikhail proceeded, however, in a very wary manner, and instead of opposing the invaders in the open field, he entrapped them by ambuscades, or allured them into districts already desolated, where they suffered so much from cold and hunger, that in 1619 they agreed to a cessation of hostilities for fourteen years and a half, on condition that the Russians should cede to Poland the government of Smolensk.

93 His prudent conduct.

Thus freed from external enemies on terms which, though not very honourable, were the best that the then posture of his affairs admitted, Mikhail set himself to arrange the internal affairs of his empire. He began by placing his father at the head of the church, by conferring on him the dignity of patriarch, which had become vacant. The counsels of this venerable man were of great advantage to Mikhail, and contributed to preserve that peace and tranquillity by which the reign of this monarch was in general distinguished. The tzar's next step was to form treaties of alliance with the principal commercial states of Europe. He accordingly sent ambassadors to England, Denmark, Holland, and the German empire; and Russia, which had hitherto been considered rather as an Asiatic than a European power, became so respectable in the eyes of her northern neighbours, that they vied with each other in forming with her commercial treaties.

Mikhail also began those improvements of the laws which we shall presently see more fully executed by his son and successor; but the tide of party ran so high, that he could do but little in the way of reformation. He was also obliged to put his frontiers in a state of defence, to provide for the expiration of the truce with Poland, which now drew nigh: and as no permanent peace had been established, both parties began to prepare for a renewal of hostilities. Indeed the armistice was broken by the Russians, who, on the death of Sigismund, king of Poland, appeared before Smolensk, and justified the infringement of the treaty, on the pretext that it was concluded with Sigismund, and not with his successors. Nothing of consequence, however, was done before Smolensk; and the Russian commander, after having lain there in perfect indolence, with an army of 50,000 men, for two years, at length raised the siege. Mikhail attempted to engage the Swedes in an alliance with him against Poland; but failing in this negociation, patched up a new treaty, which continued unbroken till his death. This happened in 1645.

An. 1646. 94 Accession of Alexei Mikhailovich.

Mikhail was succeeded by his son Alexei; but as the young prince was only 15 years of age at his father's death, a nobleman named Morosof had been appointed his governor, and regent of the empire. This man possessed all the ambition, without the prudence and address of Boris, and in attempting to raise himself and his adherents to the highest posts in the state, he incurred the hatred of all ranks of people. Though Morosof, by properly organising the army, provided for the defence of the empire against external enemies, he shamefully neglected internal policy, and connived at the most flagrant enormities in the administration of justice.

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justice. These abuses went so far, that the populace once stopped the tzar as he was returning from church to his palace, calling aloud for righteous judges. Though Alexei promised to make strict enquiry into the nature and extent of their grievances, and to inflict deserved punishment on the guilty, the people had not patience to await this tardy process, and proceeded to plunder the houses of those nobles who were most obnoxious to them. They were at length pacified, however, on condition that the author of their oppression should be brought to condign punishment. One of the most nefarious judges was put to death; and the principal magistrate of Mosco fell a victim to their rage. The life of Morosof was spared at the earnest entreaty of the zar, who engaged for his future good behaviour.

Similar disturbances had broken out at Novgorod and Pscove; but they were happily terminated, chiefly through the exertions of the metropolitan Nicon, a man of low birth, but who, from a reputation for extraordinary piety and holiness, had raised himself to the patriarchal dignity, and was high in favour with Alexei.

These commotions were scarcely assuaged, when the internal tranquillity of the empire was again threatened by a new pretender to the throne. This man was the son of a linen-draper, but gave himself out at one time for the son of the emperor Dimitri, at another for the son of Schuiskoy. Fortunately for Alexei the Poles and Swedes, whose interest it was to have fomented these intestine disturbances, remained quiet spectators of them, and the pretender meeting with few adherents, was soon taken and hanged.

The pacific conduct of the neighbouring states did not long continue, though indeed we may attribute the renewal of hostilities to the ambition of the tzar.

95 War with Poland and Sweden.

The war with Poland was occasioned by Alexei's supporting the Kozaks, a military horde, who had left the northern shores of the Dniepr, and retired further to the south. Here they had established a military democracy, and during the dominion of the Tartars in Russia, had been subject to the khan of those tribes; but after the expulsion or subjugation of the Tartars, the Kozaks had put themselves under the guardianship of Poland, to which kingdom they formerly belonged. As the Polish clergy, however, attempted to impose on them the Greek faith, they threw off their allegiance to the king of Poland, and claimed the patronage of Russia. Alexei, who seems to have sought for a pretext to break with Poland, gladly received them as his subjects, as he hoped, with their assistance, to recover the territories that had been ceded to Poland by his father. He began by negociation, and sent an embassy to the king of Poland, complaining of some Polish publications, in which reflections had been cast on the honour of his father, and demanding that by way of compensation, the Russian territories formerly ceded to Poland should be restored. The king of Poland of course refused so arrogant a demand, and both parties prepared for war. The Russians, assisted by the Kozaks, were so successful in this contest, that the king of Sweden became jealous of Alexei's good fortune, and apprehensive of an attack. He therefore determined to take an active part in the war, especially as the Lithuanians, who were extremely averse to the Russian dominion, had sought his protection. The war with Sweden commenced in 1656, and continued for two years, without any important advantage being gained by either party. A truce was concluded in 1658, for three years, and at the termination of this period, a solid peace was established. In the mean time the war with Poland continued, but was at length terminated by an armistice, which was prolonged from time to time, during the remainder of Alexei's reign.

The reign of this monarch is as remarkable for turbulence, as that of his predecessor had been for tranquillity. No sooner was peace established with the neighbouring states than fresh commotions shook the empire from within. The Don Kozaks, who now formed a part of the Russian population, felt themselves aggrieved by the rigour with which one of their officers had been treated, and placing at their head Radzin, the brother of the deceased, broke out into open rebellion. Allured by the spirit of licentiousness, and the hopes of plunder, vast numbers both of Kozaks and inferior Russians flocked to the standard of Radzin, and formed an army of nearly 200,000 men. This force, however, was formidable merely from its numbers. Radzin's followers were without arms, without discipline, and were quite unprepared to stand the attack of regular troops. Radzin himself seems to have placed no reliance on the courage or fidelity of his followers, and eagerly embraced the first opportunity of procuring a pardon by submission. Having been deceived into a belief that this pardon would be granted on his surrendering himself to the mercy of the tzar, he set out for Mosco, accompanied by his brother; but when he was arrived within a short distance of the capital, whither notice of his approach had been sent, he was met by a cart containing a gallows, on which he was hanged without ceremony. His followers, who had assembled at Astracan, were surrounded by the tzar's troops, taken prisoners, and 12,000 of them hung on the gibbets in the highways. Thus this formidable rebellion, which had threatened to subvert the authority of Alexei, was crushed almost at its commencement.

96 Commencement of a war with Turkey.

The influence which Alexei had obtained over the Donskoi Kozaks, excited the jealousy of the Sublime Porte, who justly dreaded the extension of the Russian territory on the side of the Crimea, a peninsula which at that time belonged to Turkey. After a successful attempt on the frontiers of Poland, a Turkish army entered the Ukraine, and the Russians made preparations to oppose them. Alexei endeavoured to form a confederacy against the infidels among the Christian potentates of Europe; but the age of crusading chivalry was over, and the tzar was obliged to make head against the Turks, assisted by his single ally the king of Poland. The Turkish arms were for some years victorious, especially on the side of Poland, but at length a check was put to their successes by the Polish general Sobieski, who afterwards ascended the throne of that kingdom. Hostilities between the Turks and Russians were not, however, terminated during the reign of Alexei, and the tzar left to his successor the prosecution of the war.

97 Alexei's improvements of the laws.

The reign of Alexei is most remarkable for the improvements introduced by him into the Russian laws. Before his time the *emannoi ukases*, or personal orders of the sovereign, were almost the only laws of the country. These edicts were as various as the opinions, prejudices, and passions of men; and before the days of Alexei they produced endless contentions. To remedy this

this evil, he made a selection from all the edicts of his predecessors, of such as had been current for 100 years; presuming that these either were founded in natural justice, or during so long a currency had formed the minds of the people to consider them as just. This digest, which he declared to be the common law of Russia, and which is prefaced by a sort of institute, is known by the title of the *Ulogenie* or *Selection*, and was long the standard law book; and all edicts prior to it were declared to be obsolete. He soon made his new code, however, more bulky than the Selection; and the additions by his successors are beyond enumeration. This was undoubtedly a great and useful work; but Alexei performed another still greater.

Though there were many courts of judicature in this widely extended empire, the emperor was always lord paramount, and could take a cause from any court immediately before himself. But as several of the old nobles had the remains of principalities in their families, and held their own courts, the sovereign or his ministers, at a distance up the country, frequently found it difficult to bring a culprit out of one of these hereditary feudal jurisdictions, and try him by the laws of the empire. This was a very disagreeable limitation of imperial power; and the more so, that some families, claimed even a right of replevance. A lucky opportunity soon offered of settling the dispute, and Alexei embraced it with great ability.

Some families on the old frontiers were taxed with their defence, for which they were obliged to keep regiments on foot; and as they were but scantily indemnified by the state, it sometimes required the exertion of authority to make them keep up their levies. When the frontiers by the conquest of Kazan were far extended, those gentlemen found the regiments no longer burdensome, because by the help of false musters, the formerly scanty allowance much more than reimbursed them for the expence of the establishment. The consequence was, that disputes arose among them about the right of guarding certain districts, and law suits were necessary to settle their respective claims These were tedious and intricate. One claimant showed the order of the court, issued a century or two back, to his ancestor, for the marching of his men, as a proof that the right was then in the family. His opponent proved, that his ancestors had been the real lords of the marches; but that, on account of their negligence, the court had issued an *emmanoy ukase* to the other, only at that particular period. The emperor ordered all the family archives to be brought to Mosco, and all documents on both sides to be collected. A time was set for the examination; a fine wooden court-house was built, every paper was lodged under a good guard; the day was appointed when the court should be opened and the claims heard; but that morning the house, with all its contents, was in two hours consumed by fire. The emperor then said, "Gentlemen, henceforward your ranks, your privileges, and your courts, are the nation's, and the nation will guard itself. Your archives are unfortunately lost, but those of the nation remain. I am the keeper, and it is my duty to administer justice for all and to all. Your ranks are not private, but national; attached to the services you are actually performing. Henceforward Colonel Buturlin (a private gentleman) ranks before Captain Viazemsky (an old prince)" (F).

98 He extends the commerce of Russia.

The Russians owe more to this prince than many of their historians seem willing to acknowledge; and there seems no doubt that some of the improvements attributed to Peter the Great, were at least projected by his father. Under Alexei a considerable trade was opened with China, from which country silks, and other rich stuffs, rhubarb, tea, &c. were brought into Russia, and exchanged for the Siberian furs. The exportation of Russian products to other countries was also increased; and we are assured that Alexei had even projected the formation of a navy, and would have executed the design, had he not been perpetually occupied in foreign wars and domestic troubles.

An. 1676. 99 Reign of Feodor.

Alexei died in 1676, leaving three sons and six daughters.—Two of the sons, Feodor and Ivan, were by a first marriage; the third, Peter, by a second. The two former, particularly Ivan, were of a delicate constitution, and some attempts were made by the relations of Peter to set them aside. These attempts, however, proved unsuccessful, and Feodor was appointed the successor of Alexei.

The reign of this prince was short, and distinguished rather for the happiness which the nation then experienced, than for the importance of the transactions that took place. He continued the war with the Turks for four years after his father's death, and at length brought it to an honourable conclusion, by a truce for 20 years, after the Turks had acknowledged the Russian right of sovereignty over the Kozaks. Feodor died in 1682, but before his death nominated his half-brother Peter his successor.

An. 1682. 100 Intrigues of the princess Sophia.

The succession of Peter, though appointed by their favourite tzar Feodor, was by no means pleasing to the majority of the Russian nobles, and it was particularly opposed by Galitzin, the prime minister of the late tzar. This able man had espoused the interest of Sophia, the sister of Feodor and Ivan, a young woman of eminent abilities, and the most insinuating address. Sophia, upon pretence of asserting the claims of her brother Ivan, who, though of a feeble constitution and weak intellects, was considered as the lawful heir of the crown, had really formed a design of securing the succession to herself; and, with that view, had not only insinuated herself into the confidence and good graces of Galitzin, but had brought over to her interests the Strelitzes (G). These licentious soldiers assembled for the purpose, as was pretended, of placing on the throne Prince Ivan, whom they

(F) This transaction is, by most historians, placed under the reign of Alexei, as we have related it; but Mr Tooke, in his history of Russia (vol. ii. p. 37.) attributes the burning of the records of service, by which the nobles and chief courtiers held their offices, to Feodor.

(G) The Strelitzes composed the standing army of Russia, and formed the body guard of the tzars. At this time they amounted to about 14,000, and of course became a formidable engine in the hands of the enterprising princess.

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they proclaimed tzar by acclamation. During three days they roved about the city of Mosco, committing the greatest excesses, and putting to death several of the chief officers of state, who were suspected of being hostile to the designs of Sophia. Their employer did not, however, entirely gain her point; for as the new tzar entertained a sincere affection for his half-brother Peter, he insisted that this prince should share with him the imperial dignity. This was at length agreed to; and on the 6th of May 1682, Ivan and Peter were solemnly crowned joint emperors of all the Russias, while the princess Sophia was nominated their copartner in the government.

101 Joint reign of Ivan and Peter I.

From the imbecility of Ivan and the youth of Peter, who was now only 10 years of age, the whole power of the government rested on Sophia and her minister Galitzin, though till the year 1687 the names of Ivan and Peter only were annexed to the imperial decrees. Scarcely had Sophia established her authority than she was threatened with deposition, from an alarming insurrection of the Strelitzes. This was excited by their commander Prince Kovanskoi, who had demanded of Sophia that she would marry one of her sisters to his son, but had met with a mortifying refusal from the princess. In consequence of this insurrection, which threw the whole city of Mosco into terror and consternation, Sophia and the two young tzars took refuge in a monastery, about 12 leagues from the capital; and before the Strelitzes could follow them thither, a considerable body of soldiers, principally foreigners, was assembled in their defence. Kovanskoi was taken prisoner, and instantly beheaded; and though his followers at first threatened dreadful vengeance on his executioners, they soon found themselves obliged to submit. From every regiment was selected the tenth man, who was to suffer as an atonement for the rest; but this cruel punishment was remitted, and only the most guilty among the ringleaders suffered death.

An. 1687. 102 The party of Peter gains ground.

The quelling of these disturbances gave leisure to the friends of Peter to pursue the plans which they had formed for subverting the authority of Sophia; and about this time a favourable opportunity offered, in consequence of a rupture with Turkey. The Porte was now engaged in a war with Poland and the German empire, and both these latter powers had solicited the assistance of Russia against the common enemy. Sophia and her party were averse to the alliance; but as there were in the council many secret friends of Peter, these had sufficient influence to persuade the majority, that a Turkish war would be of advantage to the state. They even prevailed on Galitzin to put himself at the head of the army, and thus removed their principal opponent. It is difficult to conceive how a man, so able in the cabinet as Galitzin, could have suffered his vanity so far to get the better of his good sense, as to accept a military command, for which he certainly had no talents. Assembling an army of nearly 300,000 men, he marched towards the confines of Turkey, and here consumed two campaigns in marches and countermarches, and lost nearly 40,000 men, partly in unsuccessful skirmishes with the enemy, but chiefly from disease.

While Galitzin was thus trifling away his time in the south Peter, who already began to give proofs of those great talents which afterwards enabled him to act so conspicuous a part in the theatre of the north, was strengthening his party among the Russian nobles. His ordinary residence was at a village not far from Mosco, and here he had assembled round him a considerable number of young men of rank and influence, whom he called his play-mates. Among these were two foreigners, Lefort a Genevese, and Gordon a Scotchman, who afterwards signalized themselves in his service. These young men had formed a sort of military company, of which Lefort was captain, while the young tzar, beginning with the situation of drummer, gradually rose through every subordinate office. Under this appearance of a military game, Peter was secretly establishing himself in the affections of his young companions, and effectually lulled the suspicions of Sophia, till it was too late for her to oppose his machinations.

An. 1689. 103 Peter obtains the undivided sovereignty.

About the middle of the year 1689, Peter, who had now attained his seventeenth year, determined to make an effort to deprive Sophia of all share in the government, and to secure to himself the undivided sovereignty. On occasion of a solemn religious meeting that was held, Sophia had claimed the principal place as regent of the empire; but this claim was strenuously opposed by Peter, who, rather than fill a subordinate situation, quitted the place of assembly, and, with his friends and adherents, withdrew to the monastery of the Holy Trinity, which had formerly sheltered him and his copartners from the fury of the Strelitzes. This was the signal for an open rupture. Sophia, finding that she could not openly oppose the party of the tzars, attempted to procure his assassination; but as her design was discovered, she thought proper to solicit an accommodation. This was agreed to, on condition that she should give up all claim to the regency, and retire to a nunnery. The commander of the Strelitzes, who was to have been her agent in the assassination of Peter, was beheaded, and the minister Galitzin sent into banishment to Archangel.

104 He establishes a military and naval force.

Peter now saw himself in undisputed possession of the imperial throne; for though Ivan was still nominally tzar, he had voluntarily resigned all participation in the administration of affairs, and retired to a life of obscurity. The first object to which the tzar directed his attention was the establishment of a regular and well-disciplined military force. He had learned by experience how little dependence was to be placed on the Strelitzes, and these regiments he determined to disband. He commissioned Lefort and Gordon to levy new regiments, which, in their whole constitution, dress, and military exercises, should be formed on the model of other European troops. He next resolved to carry into execution the design which had been formed by his father, of constructing a navy. For this purpose he first took a journey to Archangel, where he employed himself in examining the operations of the shipwrights, and occasionally taking a part in their labours; but as he learned that the art of ship building was practised in greater perfection in Holland, and some other maritime countries of Europe, he sent thither several young Russians to be initiated into the best methods of constructing ships of war. The other measures taken by Peter for establishing a navy, and the success with which they were attended, have been already related under his life*, to which we may refer our readers for several circumstances relating to his life and character; as our object here is not to write a biography of this extraordinary man,

* See Pet. I.

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man, but briefly to narrate the transactions of his reign.

105 His successes against the Turks.

The war with Turkey still languished, but Peter was resolved to prosecute it with vigour, hoping to get possession of the town of Azof, and thus open a passage to the Black sea. He placed Gordon, Lefort, and two of his nobles at the head of the forces destined for this expedition, and himself attended the army as a private volunteer. The success of the first campaign was but trifling, and Peter found that his deficiency of artillery, and his want of transports, prevented him from making an effectual attack on Azof. These difficulties, however, were soon surmounted. He procured a supply of artillery and engineers from the emperor and the Dutch, and found means to provide a number of transports. With these auxiliaries he opened the second campaign, defeated the Turks on the sea of Azof, and made himself master of the town. Peter was so elated with these successes, that on his return from the seat of war, he marched his troops into Mosco in triumphal procession, in which Lefort, as admiral of the transports, and Scheinn as commander of the land forces, bore the most conspicuous parts, while Peter himself was lost without distinction in the crowd of subaltern officers.

He now resolved to form a fleet in the Black sea; but as his own revenues were insufficient for this purpose, he issued a *ukase*, commanding the patriarch and other dignified clergy, the nobility and the merchants, to contribute a part of their income towards fitting out a certain number of ships. This proclamation was extremely unpopular, and, together with the numerous innovations which Peter was every day introducing, especially his sending the young nobles to visit foreign countries, and his own avowed intention of making the tour of Europe, contributed to raise against him a formidable party. The vigilance and prudence of the tzar, however, extricated him from the dangers with which he was threatened, and enabled him to carry into execution his proposed journey. See PETER I.

An. 1700. 106 Peter engages in a war with Charles XII. of Sweden.

On his return to his own dominions, Peter passed through Rawa, where Augustus king of Poland then was. The tzar had determined, in conjunction with Augustus and the king of Denmark, to take advantage of the youth and inexperience of Charles XII. who had just succeeded to the Swedish throne; and in this interview with Augustus, he made the final arrangements for the part which each was to take in the war. Augustus was to receive Livonia as his part of the spoil, while Frederick king of Denmark had his eye on Holstein, and Peter had formed designs on Ingria, formerly a province of the Russian empire.

107 Is defeated by the Swedes.

In the middle of the year 1700, Charles had left his capital, to oppose these united enemies. He soon compelled the king of Denmark to give up his designs on Holstein, and sign a treaty of peace; and being thus at liberty to turn his arms against the other members of the confederacy, he resolved first to lead his army against the king of Poland; but on his way he received intelligence that the tzar had laid siege to Narva with 100,000 men. On this he immediately embarked at Varlserona, though it was then the depth of winter, and the Baltic was scarcely navigable; and soon landed at Pernaw in Livonia with part of his forces, having ordered the rest to Reval. His army did not exceed 20,000 men, but it was composed of the best soldiers in Europe, while that of the Russians was little better than an undisciplined multitude. Every possible obstruction, however, had been thrown in the way of the Swedes. Thirty thousand Russians were posted in a defile on the road, and this corps was sustained by another body of 20,000 drawn up some leagues nearer Narva. Peter himself had set out to hasten the march of a reinforcement of 40,000 men, with whom he intended to attack the Swedes in flank and rear; but the celerity and valour of Charles baffled every attempt to oppose him. He set out with 4000 foot, and an equal number of cavalry, leaving the rest of the army to follow at their leisure. With this small body he attacked and defeated the Russian armies successively, and pushed his way to Peter's camp, for the attack of which he gave immediate orders. This camp was fortified by lines of circumvallation and contravallation, by redoubts, by a line of 150 brass cannons placed in front, and defended by an army of 80,000 men; yet so violent was the attack of the Swedes, that in three hours the entrenchments were carried, and Charles, with only 4000 men, that composed the wing which he commanded, pursued the flying enemy, amounting to 50,000, to the river Narva. Here the bridge broke down with the weight of the fugitives, and the river was filled with their bodies. Great numbers returned in despair to their camp, where they defended themselves for a short time, but were at last obliged to surrender. In this battle, 30,000 were killed in the intrenchments and the pursuit, or drowned in the river; 20,000 surrendered at discretion, and were dismissed unarmed, while the rest were totally dispersed. A hundred and fifty pieces of cannon, 28 mortars, 151 pairs of colours, 20 standards, and all the Russian baggage, fell into the hands of the Swedes; and the duke de Croy, the prince of Georgia, and seven other generals were made prisoners. Charles behaved with the greatest generosity to the conquered. Being informed that the tradesmen of Narva had refused credit to the officers whom he detained prisoners, he sent 1000 ducats to the duke de Croy, and to every other officer a proportionable sum.

Peter was advancing with 40,000 men to surround the Swedes, when he received intelligence of the dreadful defeat at Narva. He was greatly chagrined; but comforting himself with the hopes that the Swedes would in time teach the Russians to beat them, he returned to his own dominions, where he applied himself with the utmost diligence to the raising of another army. He evacuated all the provinces which he had invaded, and for a time abandoned all his great projects, thus leaving Charles at liberty to prosecute the war against Poland.

As Augustus had expected an attack, he endeavoured to draw the tzar into a close alliance with him. The two monarchs had an interview at Birsen, where it was agreed that Augustus should lend the tzar 50,000 German soldiers, to be paid by Russia; that the tzar should send an equal number of his troops to be trained up to the art of war in Poland; and that he should pay the king 3,000,000 of rixdollars in the space of two years. Of this treaty Charles had notice, and, by means of his minister Count Piper, entirely frustrated the scheme.

108 Renewed exertions of Peter.

After the battle of Narva, Charles became confident and negligent, while the activity of Peter increased with his losses. He supplied his want of artillery by melting down

Russia.

down the bells of the churches, and constructed numerous small vessels on the lake of Ladoga, to oppose the entrance of the Swedes into his dominions. He took every advantage of Charles's negligence, and engaged in frequent skirmishes, in which, though often beaten, he was sometimes victorious. Thus, he proved to his soldiers, that the Swedes though conquerors, were not invincible, and kept up the spirit of his troops by liberally rewarding every instance of courage and success. He contrived to make himself master of the river Neva, and captured Nyenschantz, a fortress at the mouth of that river. Here he laid the foundation of that city which he had long projected, and which was to become the future metropolis of his empire. At length in 1704 he became master of Ingria, and appointed his favourite Prince Menzikoff to be viceroy of that province, with strict orders to make the building of the new city his principal concern. Here already buildings were rising in every quarter, and navigation and commerce were increasing in vigour and extent.

109 The Swedes defeated.

In the mean time Augustus king of Poland, though treating with Charles for the surrender of his dominions, was obliged to keep up the appearance of war, which he had neither ability nor inclination to conduct. He had been lately joined by Prince Menzikoff with 30,000 Russians; and this obliged him, contrary to his inclination, to hazard an engagement with Meyerfeldt, who commanded 10,000 men, one half of whom were Swedes. As at this time no disparity of numbers whatever was reckoned an equivalent to the valour of the Swedes, Meyerfeldt did not decline the combat, though the army of the enemy was four times as numerous as his own. With his countrymen he defeated the enemy's first line, and was on the point of defeating the second, when Stanislaus, with the Poles and Lithuanians, gave way. Meyerfeldt then perceived that the battle was lost; but he fought desperately, that he might avoid the disgrace of a defeat. At last, however, he was oppressed by numbers, and forced to surrender; suffering the Swedes for the first time to be conquered by their enemies. The whole army were taken prisoners excepting Major-general Krassau, who having repeatedly rallied a body of horse formed into a brigade, at last broke through the enemy, and escaped to Posnania.

110 Augustus obliged to resign the crown of Poland.

Augustus had scarcely sung *Te Deum* for this victory, when his plenipotentiary returned from Saxony with the articles of the treaty, by which he was to renounce all claim to the crown of Poland in favour of his rival Stanislaus. The king hesitated and scrupled, but at last signed them; after which he set out for Saxony, glad at any rate to be freed from such an enemy as the king of Sweden, and from such allies as the Russians.

The tzar Peter was no sooner informed of this extraordinary treaty, and the cruel execution of his plenipotentiary Patkul *, than he sent letters to every court in Christendom, complaining of this gross violation of the law of nations. He entreated the emperor, the queen of Britain, and the States-General, to revenge this insult on humanity. He stigmatized the compliance of Augustus with the opprobrious name of pusillanimity; exhorted them not to guarantee a treaty so unjust, but to despise the menaces of the Swedish bully. So well, however, was the prowess of the king of Sweden known, that none of the allies thought proper to irritate him, by refusing to guarantee any treaty he thought proper. At first, Peter thought of revenging Patkul's death by massacring the Swedish prisoners at Mosco; but from this he was deterred, by remembering that Charles had many more Russian prisoners than he himself had of Swedes. Giving over all thoughts of revenging himself in this way, therefore, in the year 1707 he entered Poland at the head of 60,000 men. Advancing to Leopold, he made himself master of that city, where he assembled a diet, and solemnly deposed Stanislaus with the same ceremonies which had been used with regard to Augustus. The country was now reduced to the most miserable situation; one party, through fear, adhered to the Swedes; another was gained over, or forced by Peter to take part with him; a violent civil war took place between the two, and great numbers of people were butchered; while cities, towns, and villages, were laid in ashes by the frantic multitude. The appearance of a Swedish army under King Stanislaus and General Lewenhaupt, put a stop to these disorders, Peter himself not caring to stand before such enemies. He retired, therefore, into Lithuania, giving out as the cause of his retreat, that the country could not supply him with provision and forage necessary for so great an army.

* See *Patkul*.

111 Peter determines to continue the war.

An. 1707. 112 Peter enters Poland.

113 Charles visits Augustus,

During these transactions Charles had taken up his residence in Saxony, where he gave laws to the court of Vienna, and in a manner intimidated all Europe. At last, satiated with the glory of having dethroned one king, set up another, and struck all Europe with terror and admiration, he began to evacuate Saxony in pursuit of his great plan, the dethroning the tzar Peter, and conquering the vast empire of Russia. While the army was on full march in the neighbourhood of Dresden, he took the extraordinary resolution of visiting King Augustus with no more than five attendants. Though he had no reason to imagine that Augustus either did or could entertain any friendship for him, he was not uneasy at the consequences of thus putting himself entirely in his power. He got to the palace door of Augustus before it was known that he had entered the city. General Fleming having seen him at a distance, had only time to run and inform his master. What might be done in the present case immediately occurred to the minister, but Charles entered the elector's chamber in his boots before the latter had time to recover from his surprise. He breakfasted with him in a friendly manner, and then expressed a desire of viewing the fortifications. While he was walking round them, a Livonian, who had formerly been condemned in Sweden, and served in the troops of Saxony, thought he could never have a more favourable opportunity of obtaining pardon. He therefore begged of King Augustus to intercede for him, being fully assured that his majesty could not refuse so slight a request to a prince in whose power he then was. Augustus accordingly made the request, but Charles refused it in such a manner, that he did not think proper to ask it a second time. Having passed some hours in this extraordinary visit, he returned to his army, after having embraced and taken leave of the king he had dethroned.

114 and marches against the Russians.

The armies of Sweden, in Saxony, Poland, and Finland, now exceeded 70,000 men; a force more than sufficient to have conquered all the power of Russia, had they met on equal terms. Peter, who had his army dispersed in small parties, instantly assembled it on receiving

ceiving notice of the king of Sweden's march, was making all possible preparations for a vigorous resistance, and was on the point of attacking Stanislaus, when the approach of Charles struck his whole army with terror. In the month of January 1708 Charles passed the Niemen, and entered the south gate of Grodno just as Peter was quitting the place by the north gate. Charles at this time had advanced some distance before the army, at the head of 600 horse.

115 The Russians again defeated.

The tzar having intelligence of his situation, sent back a detachment of 2000 men to attack him, but these were entirely defeated; and thus Charles became possessed of the whole province of Lithuania. The king pursued his flying enemies in the midst of ice and snow, over mountains, rivers, and morasses, and through obstacles, which to surmount seemed impossible to human power. These difficulties, however, he had foreseen, and had prepared to meet them. As he knew that the country could not furnish provisions sufficient for the subsistence of his army, he had provided a large quantity of biscuit, and on this his troops chiefly subsisted, till they came to the banks of the Berizine, in view of Borislow. Here the tzar was posted, and Charles intended to give him battle, after which he could the more easily penetrate into Russia. Peter, however, did not think proper to come to an action, but retreated towards the Dniepr, whither he was pursued by Charles, as soon as he had refreshed his army. The Russians had destroyed the roads, and desolated the country, yet the Swedish army advanced with great celerity, and in their march defeated 20,000 Russians, though entrenched to the very teeth. This victory, considering the circumstances in which it was gained, was one of the most glorious that ever Charles had achieved. The memory of it is preserved by a medal struck in Sweden with this inscription; *Sylvæ, paludes, aggeres, hostes, victi.*

116 Peter attempts to make peace, but is unsuccessful.

When the Russians had re-passed the Dniepr, the tzar, finding himself pursued by an enemy with whom he could not cope, resolved to make proposals for an accommodation; but Charles answered his proposals with this arrogant reply; "I will treat with the tzar at Mosco;" a reply which was received by Peter with the coolness of a hero. "My brother Charles, said he, affects to play the Alexander, but he shall not find in me a Darius." He still, however, continued his retreat, and Charles pursued so closely, that daily skirmishes took place between his advanced guard and the rear of the Russians. In these actions the Swedes generally had the advantage, though their petty victories cost them dear, by contributing to weaken their force in a country where it could not be recruited. The two armies came so close to each other at Smolensk, that an engagement took place between a body of Russians composed of 10,000 cavalry and 6000 Kalmuks, and the Swedish vanguard, composed of only six regiments, but commanded by the king in person. Here the Russians were again defeated, but Charles having been separated from the main body of his detachment, was exposed to great danger. With one regiment only, he fought with such fury as to drive the enemy before him, when they thought themselves sure of making him prisoner.

An. 1708. 117 Charles advances towards Mosco.

By the 3d of October 1708, Charles had approached within 100 leagues of Mosco; but Peter had rendered the roads impassable, and had destroyed the villages on every side, so as to cut off every possibility of subsistence to the enemy. The season was far advanced, and the severity of winter was approaching, so that the Swedes were threatened with all the miseries of cold and famine, at the same time that they were exposed to the attacks of an enemy greatly superior in number, who, from their knowledge of the country, had almost constant opportunities of harassing and attacking them by surprise. For these reasons the king resolved to pass the Ukraine, where Mazeppa, a Polish gentleman, was general and chief of the nation. Mazeppa having been affronted by the tzar, readily entered into a treaty with Charles, whom he promised to assist with 30,000 men, great quantities of provisions and ammunition, and with all his treasures, which were immense. The Swedish army advanced towards the river Disna, where they had to encounter the greatest difficulties; a forest above 40 leagues in extent, filled with rocks, mountains, and marshes. To complete their misfortunes, they were led 30 leagues out of the right way; all the artillery was sunk in bogs and marshes; the provision of the soldiers, which consisted of biscuit, was exhausted; and the whole army spent and emaciated when they arrived at the Disna. Here they expected to have met Mazeppa with his reinforcement; but instead of that, they perceived the opposite banks of the river covered with a hostile army, and the passage itself almost impracticable. Charles, however, was still undaunted; he let his soldiers by ropes down the steep banks; they crossed the river either by swimming, or on rafts hastily put together; drove the Russians from their post, and continued their march. Mazeppa soon after appeared, having with him about 6000 men, the broken remains of the army he had promised. The Russians had got intelligence of his designs, defeated and dispersed his adherents, laid his town in ashes, and taken all the provisions collected for the Swedish army. However, he still hoped to be useful by his intelligence in an unknown country; and the Kozaks, out of revenge, crowded daily to the camp with provisions.

Greater misfortunes still awaited the Swedes. When Charles entered the Ukraine, he had sent orders to General Lewenhaupt to meet him with 15,000 men, 6000 of whom were Swedes, and a large convoy of provisions. Against this detachment Peter now bent his whole force, and marched against him with an army of 65,000 men. Lewenhaupt had received intelligence that the Russian army consisted of only 24,000, a force to which he thought 6000 Swedes superior, and therefore disdained to entrench himself. A furious contest ensued, in which the Russians were defeated with the loss of 15,000 men. Now, however, affairs began to take another turn. The Swedes, elated with victory, prosecuted their march into the interior; but from the ignorance or treachery of their guides, were led into a marshy country, where the roads were made impassable by felled trees and deep ditches. Here they were attacked by the tzar with his whole army. Lewenhaupt had sent a detachment to dispute the passage of a body of Russians over a morass; but finding his detachment likely to be overpowered, he marched to support them with all his infantry. Another desperate battle ensued; the Rusians were once more thrown into disorder, and were just on the point of being totally defeated, when Peter gave orders to the Kozaks and Kalmuks to fire

upon all that fled; "Even kill me, said he, if I should be so cowardly as to turn my back." The battle was now renewed with great vigour; but notwithstanding the tzar's positive orders, and his own example, the day would have been lost, had not General Bauer arrived with a strong reinforcement of fresh Russian troops. The engagement was once more renewed, and continued without intermission till night. The Swedes then took possession of an advantageous post, but were next morning attacked by the Russians. Lewenhaupt had formed a sort of rampart with his waggons, but was obliged to set fire to them to prevent their falling into the hands of the Russians, while he retreated under cover of the smoke. The tzar's troops, however, arrived in time to save 500 of these waggons, filled with provisions destined for the distressed Swedes. A strong detachment was sent to pursue Lewenhaupt; but so terrible did he now appear, that the Russian general offered him an honourable capitulation. This was rejected with disdain, and a fresh engagement took place, in which the Swedes, now reduced to 4000, again defeated their enemies, and killed 5000 on the spot. After this, Lewenhaupt was allowed to pursue his retreat without molestation, though deprived of all his cannon and provisions. Prince Menzikoff was indeed detached with a body of forces to harass him on his march; but the Swedes were now so formidable, even in their distress, that Menzikoff dared not attack them, so that Lewenhaupt with his 4000 men arrived safe in the camp of Charles, after having destroyed nearly 30,000 of the Russians.

This may be said to have been the last successful effort of Swedish valour against the troops of Peter. The difficulties which Charles's army had now to undergo, exceeded what human nature could support; yet still they hoped by constancy and courage to subdue them. In the severest winter known for a long time, even in Russia, they made long marches, clothed like savages in the skins of wild beasts. All the draught horses perished; thousands of soldiers dropt down dead through cold and hunger; and by the month of February 1709 the whole army was reduced to 18,000. Amidst numberless difficulties these penetrated to Pultava, a town on the eastern frontier of the Ukraine, where the tzar had laid up magazines, and of these Charles resolved to obtain possession. Mazeppa advised the king to invest the place, in consequence of his having correspondence with some of the inhabitants, by whose means he hoped it would be surrendered. However, he was deceived; the besieged made an obstinate defence, the Swedes were repulsed in every assault, and 8000 of them were defeated, and almost entirely cut off, in an engagement with a party of Russians. To complete his misfortunes, Charles received a shot in his heel from a carabine, which shattered the bone. For six hours after, he continued calmly on horseback, giving orders, till he fainted with the loss of blood; after which he was carried into his tent.

118 Battle of Pultava.

For some days the tzar, with an army of 70,000 men, had lain at a small distance, harassing the Swedish camp, and cutting off the convoys of provision; but now intelligence was received, that he was advancing as if with a design of attacking the lines. In this situation, Charles, wounded, distressed, and almost surrounded by enemies, is said to have, for the first time, assembled a grand council of war, the result of which was, that it became expedient to march out and attack the Russians. Voltaire, however, totally denies that the king relaxed one jot of his wonted obstinacy and arbitrary temper; but that, on the 7th of July, he sent for General Renschild, and told him, without any emotion, to prepare for attacking the enemy next morning.

The 8th of July 1709 is remarkable for the battle which decided the fate of Sweden. Charles having left 8000 men in the camp to defend the works and repel the sallies of the besieged, began to march against his enemies by break of day with the rest of the army, consisting of 26,000 men, of whom 18,000 were Kozaks. The Russians were drawn up in two lines behind their entrenchments, the horse in front, and the foot in the rear, with chasms to suffer the horse to fall back in case of necessity. General Slippenbach was dispatched to attack the cavalry, which he did with such impetuosity that they were broken in an instant. They, however, rallied behind the infantry, and returned to the charge with so much vigour, that the Swedes were disordered in their turn, and Slippenbach made prisoner. Charles was now carried in his litter to the scene of confusion. His troops, re-animated by the presence of their leader, returned to the charge, and the battle became doubtful, when a blunder of General Creuk, who had been dispatched by Charles to take the Russians in flank, and a successful manœuvre of Prince Menzikoff, decided the fortune of the day in favour of the Russians. Creuk's detachment was defeated, and Menzikoff, who had been sent by Peter with a strong body to post himself between the Swedes and Pultava, so as to cut off the communication of the enemy with their camp, and fall upon their rear, executed his orders with so much success as to cut off a corps de reserve of 3000 men. Charles had ranged his remaining troops in two lines, with the infantry in the centre, and the horse on the two wings. They had already twice rallied, and were now again attacked on all sides with the utmost fury. Charles in his litter, with a drawn sword in one hand, and a pistol in the other, seemed to be everywhere present; but new misfortunes awaited him. A cannon ball killed both horses in the litter; and scarcely were these replaced by a fresh pair, when a second ball stroke the litter in pieces, and overturned the king. The Swedish soldiers believing him killed, fell back in consternation. The first line was completely broken, and the second fled. Charles, though disabled, did every thing in his power to restore order; but the Russians, emboldened by success, pressed so hard on the flying foe, that it was impossible to rally them. Renschild and several other general officers were taken prisoners, and Charles himself would have shared the same fate, had not Count Poniatosski (father of the future favourite of Catharine II.) with 500 horse, surrounded the royal person, and with desperate fury cut his way through ten regiments of the Russians. With his small guard the king arrived on the banks of the Dniepr, and was followed by Lewenhaupt with 4000 foot, and all the remaining cavalry. The Russians took possession of the Swedish camp, where they found a prodigious sum in specie; while Prince Menzikoff pursued the flying Swedes; and as they were in want of boats to cross the Dniepr, obliged them to

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to surrender at discretion. Charles escaped with the utmost difficulty, but at length reached Otchakof on the frontiers of Turkey. See SWEDEN.

By this decisive victory, Peter remained in quiet possession of his new acquisitions on the Baltic, and was enabled to carry on, without molestation, the improvements which he had projected at the mouth of the Neva. His haughty rival, so long and so justly dreaded, was now completely humbled, and his ally the king of Poland was again established on his throne. During the eight years that had elapsed from the battle of Narva to that of Pultava, the Russian troops had acquired the discipline and steadiness of veterans, and had at length learned to beat their former conquerors. If Peter had decreed triumphal processions for his trifling successes at Azof, it is not surprising that he should commemorate a victory so glorious and so important as that of Pultava by similar pageants. He made his triumphal entry into Mosco for the third time, and the public rejoicings on this occasion far exceeded all that had before been witnessed in the Russian empire.

An. 1711. 119 Dangerous situation of Peter at the Pruth.

The vanquished Charles had, in the mean time, found a valuable friend in the monarch in whose territories he had taken refuge. Achmet II. who then filled the Ottoman throne, had beheld with admiration the warlike achievements of the Swedish hero, and, alarmed at the late successes of his rival, determined to afford Charles the most effectual aid. In 1711, the Turkish emperor assembled an immense army, and was preparing to invade the Russian territories, when the tzar, having intimation of his design, and expecting powerful support from Cantemir, hospodar of Moldavia, a vassal of the Porte, resolved to anticipate the Turks, and to make an inroad into Moldavia. Forgetting his usual prudence and circumspection, Peter crossed the Dniepr, and advanced by rapid marches as far as Yassy or Jassy, the capital of that province, situated on the river Pruth; but his temerity had nearly cost him his liberty, if not his life. The particulars of his dangerous situation, with the manner in which he was extricated from it, by the prudent counsel of his consort Catherine, and the advantageous treaty of the Pruth, which was the result of that counsel, have been already related under CATHERINE I.

An. 1721. 120 Advantageous peace with Sweden.

By this treaty, in which the interests of Charles had been almost abandoned, Peter saw himself delivered from a dangerous enemy, and returned to his capital, to prosecute those plans for the internal improvement of his empire which justly entitled him to the appellation of GREAT. Before we enumerate these improvements, however, we must bring the Swedish war to a conclusion. The death of Charles, in 1718, had left the Swedish government deplorably weakened, by the continual drains of men and money, occasioned by his mad enterprises, and little able to carry on a war with a monarch so powerful as Peter. At length, therefore, in 1721, this ruinous contest, which had continued ever since the commencement of the century, was brought to a conclusion by the treaty of Nystadt, by which the Swedes were obliged to cede to Russia, Livonia, Esthonia, Ingria, a part of Karelia, the territory of Vyborg, the isle of Oesel, and all the other islands in the Baltic, from Courland to Vyborg; for which concessions they received back Finland, that had been conquered by Peter, together with 2,000,000 of dollars and the liberty of exporting duty free, from Riga, Reval, and Arensberg, corn to the annual amount of 50,000 rubles. In consequence of this great accession to the Russian empire, Peter received from his senate the title of *emperor and autocrator of all the Russias*, and the ancient title of tzar fell into disuse.

Itussia.

121 Peter's national improvements.

The improvements introduced by Peter into the internal policy of the empire, must he acknowledged to have been numerous and important. He organized anew the legislative assembly of the state; he greatly ameliorated the administration of justice; he new-modelled the national army; entirely erected the Russian navy; rendered the ecclesiastical government milder and less intolerant; zealously patronised the arts and sciences; erected an observatory at St Petersburg, and by publicly proclaiming the approach of an eclipse, and the precise time at which it was to take place, taught his subjects no longer to consider such a phenomenon as an omen of disaster, or an awful menace of divine judgement. He enlarged the commerce of his empire, and gave every encouragement to trade and manufactures. He formed canals, repaired the roads, instituted regular posts, and laid down regulations for a uniformity of weights and measures. Lastly, he in some measure civilized his subjects, though it is evident that he could not civilize himself.

122 Character of Peter.

It is the province of the historian to delineate the characters of the princes whose transactions he relates. Various have been the characters given of Peter the Great, by those who have detailed the events of his reign. It is certain that to him the Russian empire is indebted for much of that splendour with which she now shines among the powers of Europe. As a monarch, therefore, he is entitled to our admiration, but as a private individual we must consider him as an object of detestation and abhorrence. His tyranny and his cruelty admit of no excuse; and if we were to suppose that in sacrificing the heir of his crown he emulated the patriotism of the elder Brutus, we must remember that the same hand which signed the death warrant of his son, could, with pleasure, execute the sentence of the law, or rather of his own caprice, and, in the moments of dissipation and revelry, could make the axe of justice an instrument of diabolical vengeance, and of cool brutality.

An. 1725. 123 Reign of Catharine I.

Peter was succeeded by his consort Catharine, in whose favour he had, some years before his death, altered the order of succession. As the character of this princess, and the transactions of her short reign, have been fully detailed under her life *, we shall here only notice in the most cursory manner the events that took place.

* See *Catherine I.*

From the commencement of her reign, Catherine conducted herself with the greatest benignity and gentleness, and thus secured the love and veneration of her subjects, which she had acquired during the life of the emperor. She reduced the annual capitation tax; ordered the numerous gibbets which Peter had erected in various parts of the country to be cut down, and had the bodies of those who had fallen victims to his tyranny decently interred. She recalled the greater part of those whom Peter had exiled to Siberia; paid the troops their arrears; restored to the Kozaks those privileges and immunities of which they had been deprived during the late reign; and she continued in office most of the servants of Peter, both civil and military. She concluded.

Russia.

a treaty with the German emperor, by which it was stipulated that in case of attack from an enemy, either party should assist the other with a force of 30,000 men, and should each guarantee the possessions of the other. In her reign the boundaries of the empire were extended by the submission of a Georgian prince, and the voluntary homage of the Kubinskian Tartars. She died on the 17th of May 1727, having reigned about two years. She had settled the crown on Peter the son of the tzarovitch Alexei, who succeeded by the title of Peter II.

An. 1727. 124 Reign of Peter II.

Peter was only 12 years of age when he succeeded to the imperial throne, and his reign was short and uninteresting. He was guided chiefly by Prince Menzikoff, whose daughter Catharine had decreed him to marry. This ambitious man, who, from the mean condition of a pye-boy, had risen to the first offices of the state, and had, during the late reign, principally conducted the administration of the government, was now, however, drawing towards the end of his career. The number of his enemies had greatly increased, and their attempts to work his downfall now succeeded. A young nobleman of the family of the Dolgorukis, who was one of Peter's chief companions, was excited by his relations, and the other enemies of Menzikoff, to instil into the mind of the young prince, sentiments hostile to that minister. In this commission he succeeded so well, that Menzikoff and his whole family, not excepting the young empress, were banished to Siberia, and the Dolgorukis took into their hands the management of affairs. These artful counsellors, instead of cultivating the naturally good abilities of Peter, encouraged him to waste his time and exhaust his strength in hunting, and other athletic exercises, for which his tender years were by no means calculated. It is supposed that the debility consequent on such fatigue increased the natural danger of the small-pox, with which he was attacked in January 1730, and from which he never recovered.

An. 1730. 125 Anne duchess of Courland succeeds to the imperial throne.

Notwithstanding the absolute power with which Peter I. and the empress Catharine had settled by will the succession to the throne, the Russian senate and nobility, upon the death of Peter II. ventured to set aside the order of succession which those sovereigns had established. The male issue of Peter was now extinct; and the duke of Holstein, son to Peter's eldest daughter, was by the destination of the late empress entitled to the crown; but the Russians, for political reasons, filled the throne with Anne duchess of Courland, second daughter to Ivan, Peter's eldest brother; though her eldest sister the duchess of Mecklenburg was alive. Her reign was extremely prosperous; and though she accepted the crown under limitations that some thought derogatory to her dignity, yet she broke them all, asserted the prerogative of her ancestors, and punished the aspiring Dolgoruki family, who had imposed upon her limitations, with a view, as it is said, that they themselves might govern. She raised her favourite Biren to the duchy of Courland; and was obliged to give way to many severe executions on his account. Few transactions of any importance took place during the reign of Anne. She followed the example of her great predecessor Peter, by interfering in the affairs of Poland, where she had sufficient interest to establish on the throne Augustus III. This interference had nearly involved her in a war with France, and she had already sent a considerable army to the banks of the Rhine, for the purpose of acting against that power, when the conclusion of a treaty of peace rendered them unnecessary. She entered into a treaty with the shah of Persia, by which she agreed to give up all title to the territories that had been seized by Peter I. on the shores of the Caspian, in consideration of certain privileges to be granted to the Russian merchants.

In 1735, a rupture took place between Russia and Turkey, occasioned partly by the mutual jealousies that had subsisted between these powers, ever since the treaty on the Pruth, and partly by the depredations of the Tartars of the Crimea, then under the dominion of the Porte. A Russian army entered the Crimea, ravaged part of the country, and killed a considerable number of Tartars; but having ventured too far, without a sufficient supply of provisions, was obliged to retreat, after sustaining a loss of nearly 10,000 men. This ill success did not discourage the court of St Petersburgh; and in the following year another armament was sent into the Ukraine, under the command of Marshal Munich, while another army under Lascy proceeded against Azof. Both these generals met with considerable success; the Tartars were defeated, and the fort of Azof once more submitted to the Russian arms. A third campaign took place in 1737, and the Russians were now assisted by a body of Austrian troops. Munich laid siege to Otchakof, which soon surrendered, while Lascy desolated the Crimea.

No material advantages were, however, gained on either side; and disputes arose between the Austrian and Russian generals. At length in 1739, Marshal Munich having crossed the Bog at the head of a considerable army, defeated the Turks in a pitched battle near Stavutshan, made himself master of Yassy, the capital of Moldavia, and before the end of the campaign reduced the whole of that province under his subjection. These successes of the Russian arms induced the Porte to propose terms of accommodation; and in the latter end of 1739, a treaty was concluded, by which Russia again gave up Azof and Moldavia, and to compensate the loss of above 100,000 men, and vast sums of money, gained nothing but permission to build a fortress on the Don.

An. 1740. 126 Accession and imprisonment of Ivan VI.

Upon the death of Anne, which took place in 1740, Ivan, the son of her niece, the princess of Mecklenburg was, by her will, entitled to the succession; but being no more than two years old, Biren was appointed to be administrator of the empire during his minority. This nomination was disagreeable to the princess of Mecklenburg and her husband, and unpopular among the Russians. Count Munich was employed by the princess of Mecklenburg to arrest Biren, who was tried, and condemned to die, but was sent into exile to Siberia.

The administration of the princess Anne of Mecklenburg and her husband was upon many accounts disagreeable, not only to the Russians, but to other powers of Europe; and notwithstanding a prosperous war they carried on with the Swedes, the princess Elizabeth, daughter by Catharine to Peter the Great, formed such a party that in one night's time she was declared and proclaimed empress of the Russias; and the princess of Mecklenburg, her husband, and son, were made prisoners. The fate of this unhappy family was peculiarly severe. All but Ivan were sent into banishment, to an island

Russia.

island at the mouth of the Dvina, in the White sea, where the princess Anne died in child bed in 1747. Ivan's father survived till 1775, and at last ended his miserable career in prison. The young emperor Ivan was for some time shut up in a monastery at Oranienburg, when, on attempting to escape, he was removed to the castle of Schlusselburg, where he was, as will hereafter be related, cruelly put to death.

An. 1741. 127 Accession of Elizabeth.

The chief instrument in rousing the ambition of Elizabeth, and procuring her elevation to the throne, was her physician and favourite Lestoc, who, partly by his insinuating address, and partly by the assistance of the French ambassador, brought over to Elizabeth's interest most of the royal guards. By their assistance she made herself mistress of the imperial palace, and of the persons of the young emperor and his family, and in a few hours was established without opposition on the throne of her father.

During the short regency of Anne of Mecklenburg, a new war had commenced between Russia and Sweden; and this war was carried on with considerable acrimony and some success, by Elizabeth. The Russian forces took possession of Abo, and made themselves masters of nearly all Finland. But at length in 1743, in consequence of the negociations that were carrying on relative to the succession of the Swedish crown, a peace was concluded between the two powers, on the condition that Elizabeth should restore the greater part of Finland.

An. 1742. 128 Peter duke of Holstein Gottorp made grand duke of Russia.

Soon after her accession, Elizabeth determined to nominate her successor to the imperial throne, and had fixed her eyes on Charles Peter Ulric, son of the duke of Holstein Gottorp, by Anne, daughter of Peter the Great. This prince was accordingly invited into Russia, persuaded to become a member of the Greek church, and proclaimed grand duke of Russia, and heir of the empire. The ceremony of his baptism was performed on the 18th November, 1742, and he received the name of Peter Feodoroviteh. He was at this time only fourteen years of age; but before he had attained his sixteenth year, his aunt had destined him a consort in the person of Sophia Augusta Frederica, daughter of Christian Augustus prince of Anhalt-zerbst-Dornburg. It is unnecessary for us here to relate the circumstances that led to this marriage, and the unhappy consequences that resulted from it during the life of Elizabeth, as they have already been sufficiently detailed*.

* See Catherine II.

129 Elizabeth engages in the seven years war.

Having thus settled the order of succession, Elizabeth began to take an active part in the politics of Europe. The death of Charles VI. emperor of Germany had left his daughter, Maria Theresa queen of Hungary, at the mercy of the enterprising king of Prussia, till a formidable party, more from jealousy of that monarch's military fame than regard to the interests of an injured princess, was formed in her behalf. To this confederacy the empress of Russia acceded, and in 1747 sent a considerable body of troops into Germany, to the assistance of the empress queen. The events of this long and bloody contest have been fully detailed under the article PRUSSIA, from N° 18 to 64, and they comprise the greater part of those transactions in the reign of Elizabeth that do not particularly regard the internal policy of the empire. The more private transactions of the court of St Petersburg, as far as they are connected with the intrigues of her niece Catherine and the follies of the grand duke Peter, have also been related in our life of CATHERINE II. Elizabeth died on the 5th January 1762, the victim of disease brought on by intemperance. With her character as a private woman we have little business here. Her merits as a sovereign will appear from the following summary drawn by Mr Tooke.

130 Character of Elizabeth.

Elibabeth, as empress, governed but little of herself; it being properly her ministers and favourites who dictated her regulations and decrees. Of this number, besides Bestuchef, was also Bazumofsky, to whom, it has been said, the empress was even privately married. At the beginning of her reign, it is true, she went a few times to the sitting of the senate; but the matters transacted there were by much too serious for her mind; and, accordingly, she very soon left off that practice altogether, contenting herself by confirming with her signature the resolutions of that assembly, and the determinations of her minister, or the *conference*, which supplied the place of the council.

Her character in general was mild, as was evident from the tears it cost her whenever she received accounts from Prussia even of victories gained by her own army, on account of the human blood by which they must necessarily have been purchased. Yet even this delicate sensibility did not restrain her from prosecuting the war into which she had entered from a species of revenge, and for the purpose of humbling the king of Prussia, and even on her death-bed from exhorting the persons who surrounded her to the most vigorous continuation of it. It also proceeded from this sensibility, that immediately on her accession to the government she made the vow never to put her signature to a sentence of death. A resolution which she faithfully kept; though it cannot be averred to have been for the benefit of the empire; since in consequence of it the number of malefactors who deserved to die was every day increasing, insomuch that even the clergy requested the empress to retract her vow, at the same time urging proofs that they could release her from it. All the arguments they could use, however, were of no avail to move the conscientious monarch; she would not give effect to any sentence of death, although the commanders in the army particularly would have been glad that her conscience had yielded a little on that point. They declared that the soldiers were not to be restrained from their excesses by the severest corporal punishments they could employ; whereas such was their dread of a solemn execution, that a few examples of that nature would have effectually kept them in awe.

131 Her improvements in the empire.

Commerce and literature, arts, manufactures, handicrafts, and the other means of livelihood, which had been fostered by the former sovereigns, continue their course under Elizabeth with increasing prosperity. The country products were obtained and wrought up in greater quantities, and several branches of profit were more zealously carried on. The sum appointed for the support of the academy of sciences founded by Peter I. at St Petersburgh, was considerably augmented by Elizabeth: and she moreover established in 1758 the academy still subsisting for the arts of painting and sculpture, in which a number of young persons are brought up as painters, engravers, statuaries, architects, &c. At Mosco she endowed a university and two gymnasia.

The empress Elizabeth herself having a good voice, music,

Russia.

music, which Anne had already much encouraged, found under her administration a perpetual accession of disciples and admirers; so that even numbers of persons of distinction at St Petersburgh became excellent performers. The art of acting plays was now also more general among the Russians. Formerly none but French or Italian pieces were performed on the stage of St Petersburgh, whereas now Sumarokof obtained celebrity, as a dramatic poet in his native language, and in 1756 Elizabeth laid the foundation of a Russian theatre in her residence. Architecture likewise found a great admirer and patroness in her, St Petersburgh and its vicinity being indebted to her for great embellishments, and numerous structures.

The magnificence which had prevailed under Anne at the court of St Petersburgh was not diminished during her reign, and the court establishment therefore amounted to extraordinary sums. Elizabeth, indeed, in this respect did not imitate her great father; and accordingly in the seven years war the want of a well-stored treasury was already very sensibly felt.

The population of the empire was considerably increased under her reign; and so early as 1752, according to the statement in an account published by an official person, it was augmented by one-fifth.

Elizabeth continued the practice of her predecessors in encouraging foreigners to come to settle in her empire. Emigrant Servians cultivated a considerable tract of land, till then almost entirely uninhabited, on the borders of Turkey, where they built the town of Elizabethgorod, and multiplied so fast, that in the year 1764 a particular district was formed of these improvements, under the name of New Servia. Only the Jews Elizabeth was no less resolute not to tolerate than her father had been; insomuch that, so early in her reign as 1743, they were ordered to quit the country on pain of death.

The army was augmented under Elizabeth, but certainly not improved. There were now no longer at the head of it such men as the foreigners, Munich, Keith, or Loevendal, who, besides their personal courage and intrepidity, possessed the soundest principles of the art of war; and, what is of no less consequence in a commander, kept up a strict discipline, and took care that the laws of subordination were punctually observed. The excessive licence which the regiments of guards, particularly the life company of the Preobajerskoy guards, presumed to exercise, under the very eyes of the empress in St Petersburgh, afforded no good example to the rest of the army; and Elizabeth, in appointing those soldiers of that life company, who had been most guilty of flagrant disorders, and the basest conduct, to be officers in the marching regiments, gives us no very high idea of what was required in an officer, but rather serves easily to explain whence it arose that such frequent complaints were made of insubordination. A great number of excellent regulations that had been introduced into the army, and always enforced by foreigners, especially by Munich, were suffered by the Russian generals to fall into total disuse. The bad effects of this negligence were very soon perceived; and it was undoubtedly a circumstance highly favourable to the Russian troops, that for several years successively, in the war which we have had occasion so often to mention, they had to engage with such a master in the military art as the king of Prussia, and by their conflicts with him, as well as by their connection with the Austrians, and in the sequel with the Prussian soldiery, they had an opportunity of learning so many things, and of forming themselves into regular combatants.

132 She establishes a political inquisition.

Elizabeth tarnished her reign, however, by the institution of a political court of inquisition, under the name of a secret state chancery, empowered to examine into and punish all such charges as related to the expression of any kind of displeasure against the measures of government. This, as is usual in such cases, opened a door to the vilest practices. The lowest and most profligate of mankind were now employed as spies and informers, and were rewarded for their denunciations and calumnies against the most virtuous characters, if these happened by a look, a shrug of the shoulders, or a few harmless words, to signify their disapprobation of the proceedings of the sovereign*.

* See *Tooke's Hist. Russia*, vol. ii. p. 330.

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133 Accession Peter III

The grand duke ascended the throne by the name of Peter III. This prince's conduct has been variously represented. He entered on the government possessed of an enthusiastic admiration of the virtues of the king of Prussia, with whom he immediately made peace, and whose principles and practice he seems to have adopted as patterns for his imitation. He might have surmounted the effects even of those peculiarities, unpopular as they then were in Russia; but it is said that he aimed at reformations in his dominions, which even Peter the Great durst not attempt; and that he even ventured to cut off the beards of his clergy. He was certainly a weak man, who had no opinions of his own, but childishly adopted the sentiments of any person who took the trouble to teach him. His chief amusement was buffoonery; and he would sit for hours looking with pleasure at a merry-Andrew singing drunken and vulgar songs. He was a stranger to the country, its inhabitants, and their manners; and suffered himself to be persuaded by those about him, that the Russians were fools and beasts unworthy of his attention, except to make them, by means of the Prussian discipline, good fighting machines. These sentiments regulated his whole conduct, and prepared the way for that revolution which improprieties of a different kind tended to hasten.

134 His impr dences.

Becoming attached to one of the Vorontzoff ladies, sister to the princess Dashkoff, he disgusted his wife, who was then a lovely woman in the prime of life, of great natural talents and great acquired accomplishments; whilst the lady whom he preferred to her was but one degree above an idiot. The princess Dashkoff, who was married to a man whose genius was not superior to that of the emperor, being *dame d'honneur* and lady of the bed-chamber, had of course much of the empress's company. Similarity of situations knit these two illustrious personages in the closest friendship. The princess being a zealous admirer of the French *œconomistes*, could make her conversation both amusing and instructive. She retailed all her statistical knowledge; and finding the empress a willing hearer, she spoke of her in every company as a prodigy of knowledge, judgment, and philanthropy. Whilst the emperor, by his buffoonery and attachment to foreign manners, was daily incurring more and more the odium of his subjects, the popularity of his wife was rapidly increasing; and some persons about the court expressed their regret, that so much knowledge of government, such love of humanity, and such

such ardent wishes for the prosperity of Russia, should only furnish conversations with Catharina Romanovna (the princess Dashkoff). The empress and her favourite did not let these expressions pass unobserved, they continued their studies in concert; and whilst the former was employed on her famous code of laws, for a great empire, the latter always reported progress, till the middling circles of Mosco and St Petersburgh began to speak familiarly of the blessings which they might enjoy if these speculations could be realized.

Meanwhile Peter III. was giving fresh cause of discontent. He had recalled from Siberia Count Munich, who was indeed a sensible, brave, and worthy man; but as he was smarting under the effects of Russian despotism, and had grounds of resentment against most of the great families, he did not much discourage the emperor's unpopular conduct, but only tried to moderate it and give it a system. Peter, however, was impatient. He publicly ridiculed the exercise and evolutions of the Russian troops; and hastily adopting the Prussian discipline, without digesting and fitting it for the constitution of his own forces, he completely ruined himself by disgusting the army.

135 Roused to temporary reformation by a speech of Gudovitch.

In the midst of these imprudences, however, Peter was sometimes disturbed by the advice of virtuous counsellors. Among these Gudovitch, the vice-chamberlain, is said to have reproached him in the following spirited address:

"Peter Feodorovitch, I now plainly perceive that you prefer to us the enemies of your fame. You are irrecoverably subservient to them; you acknowledge them to have had good reason for saying that you were more addicted to low and degrading pleasures, than fit to govern an empire. Is it thus that you emulate your vigilant and laborious grandsire, that Peter the Great whom you have so often sworn to take for your model? Is it thus that you persevere in the wise and noble conduct, by which, at your accession to the throne, you merited the love and the admiration of your people? But that love, that admiration, is already forgotten. They are succeeded by discontent and murmurs. Petersburgh is anxiously enquiring whether the tzar has ceased to live within her walls? The whole empire begins to fear that it has cherished only vain speculations of receiving laws that shall revive its vigour and increase its glory. The malevolent alone are triumphant; and soon will the intrigues, the cabals, which the first moments of your reign had reduced to silence, again raise their heads with redoubled insolence. Shake off then this disgraceful lethargy, my tzar! hasten to shew and to prove, by some resplendent act of virtue, that you are worthy of realizing those hopes that have been formed and cherished of you."

136 Catharine forms a party in her favour.

These remonstrances, however, produced only a temporary gleam of reformation, and Peter soon relapsed into his accustomed sensuality. What he lost in popularity was soon gained by the emissaries of Catharine. Four regiments of guards, amounting to 8000 men, were instantly brought over by the three brothers Orloff, who had contrived to ingratiate themselves with their officers. The people at large were in a state of indifference, out of which they were roused by the following means. A little manuscript was handed about, containing principles of legislation for Russia, founded on natural rights, and on the claims of the different classes of people which had insensibly been formed, and became so familiar as to appear natural. In that performance was proposed a convention of deputies from all the classes, and from every part of the empire, to converse, but without authority, on the subjects of which it treated, and to inform the senate of the result of their deliberations. It passed for the work of her majesty, and was much admired.

While Catharine was thus high in the public esteem and affection, the emperor took the alarm at her popularity, and in a few days came to the resolution of confining her for life, and then of marrying his favourite. The servants of that favourite betrayed her to her sister, who imparted the intelligence to the empress. Catharine saw her danger, and instantly formed her resolution. She must either tamely submit to perpetual imprisonment, and perhaps a cruel and ignominious death, or contrive to hurl her husband from his throne. No other alternative was left her, and the consequence was what was undoubtedly expected. The proper steps were taken; folly fell before abilities and address, and in three days the revolution was accomplished.

137 Peter dethroned,

When the emperor saw that all was lost, he attempted to enter Cronstadt from Oranienbaum, a town on the gulf of Finland, 30 versts, or nearly 26 miles from St Petersburgh. The sentinels at the harbour presented their muskets at the barge; and though they were not loaded, and the men had no cartridges, he drew back. The English sailors called from ship to ship for some person to head them, declaring that they would take him in and defend him; but he precipitately withdrew. Munich received him again, and exhorted him to mount his horse, and head his guards, swearing to live and die with him. He said, "No, I see it cannot be done without shedding much of the blood of my brave Holsteiners. I am not worthy of the sacrifice." It is unnecessary for us to be more particular in detailing the progress of the revolution that placed Catharine on the throne of Russia, as the principal circumstances attending this event are given under the life of CATHERINE; but as the conclusion of the tragedy has been there omitted, we shall relate it from the most authentic sources which we have been able to procure.

138 and put to death.

Six days had already elapsed since the revolution, and that great event had been apparently terminated without any violence that might leave odious impressions on the mind of the public. Peter had been removed from Peterhof to a pleasant retreat called Ropscha, about 30 miles from St Petersburgh; and here he supposed he should be detained but a short time previous to his being sent into Germany. He therefore sent a message to Catharine, desiring permission to have for his attendant a favourite negro, and that she would send him a dog, of which he was very fond, together with his violin, a bible, and a few romances, telling her that, disgusted with the wickedness of mankind, he was resolved henceforth to devote himself to a philosophical life. However reasonable these requests, not one of them was granted, and his plans of wisdom were turned into ridicule.

In the mean time the soldiers were amazed at what they had done; they could not conceive by what fascination they had been hurried so far as to dethrone the grandson of Peter the Great, in order to give his crown to a German woman. The majority, without plan or sentiment

sentiment of what they were doing, had been mechanically led on by the movements of others; and each individual now reflecting on his baseness, after the pleasure of disposing of a crown had vanished, was filled only with remorse. The sailors, who had never been engaged in the insurrection, openly reproached the guards in the tippling houses with having sold their emperor for beer. Pity, which justifies even the greatest criminals, pleaded irresistibly in every heart. One night a band of soldiers attached to the empress took the alarm, from an idle fear, and exclaimed that their mother was in danger, and that she must be awaked, that they might see her. During the next night there was a fresh commotion more serious than the former. So long as the life of the emperor left a pretext for inquietude, it was thought that no tranquillity was to be expected.

On the sixth day of the emperor's imprisonment at Ropscha, Alexey Orlof, accompanied by an officer named Teploff, came to him with the news of his speedy deliverance, and asked permission to dine with him. According to the custom of that country, wine glasses and brandy were brought previous to dinner; and while the officer amused the tzar with some trifling discourse, his chief filled the glasses, and poured a poisonous mixture into that which he intended for the prince. The tzar, without any distrust, swallowed the potion, on which he immediately experienced the most severe pains; and on his being offered a second glass, on pretence of its giving him relief, he refused it, with reproaches against him that offered it.

He called aloud for milk, but the two monsters offered him poison again, and pressed him to take it. A French valet-de-chambre, greatly attached to him, now ran in. Peter threw himself into his arms, saying in a faint tone of voice, "It was not enough then to prevent me from reigning in Sweden, and to deprive me of the crown of Russia! I must also be put to death."

The valet-de-chambre presumed to intercede for his master; but the two miscreants forced this dangerous witness out of the room, and continued their ill-treatment of the tzar. In the midst of this tumult the younger of the princes Baratinsky came in, and joined the two former. Orloff who had already thrown down the emperor, was pressing upon his breast with both his knees, and firmly griping his throat with his hand. The unhappy monarch, now struggling with that strength which arises from despair, the two other assassins threw a napkin round his neck, and put an end to his life by suffocation.

It is not known with certainty what share the empress had in this event; but it is affirmed that on the very day on which it happened, while the empress was beginning her dinner with much gaiety, an officer (supposed to be one of the assassins) precipitately entered the apartment with his hair dishevelled, his face covered with sweat and dust, his clothes torn, and his countenance agitated with horror and dismay. On entering, his eyes, sparkling and confused, met those of the empress. She arose in silence, and went into a closet, whither he followed her; a few moments afterwards she sent for Count Panin (the former governor of Peter), who was already appointed her minister, and she informed him that the emperor was dead, and consulted him on the manner of announcing his death to the public. Panin advised her to let one night pass over, and to spread the news next day, as if they had received it during the night. This counsel being approved, the empress returned with the same countenance, and continued her dinner with the same gaiety. On the day following, when it was published that Peter had died of an hœmorrhoidal colic, she appeared bathed in tears, and proclaimed her grief by an edict.

The corpse was brought to St Petersburgh, there to be exposed. The face was black, and the neck excoriated. Notwithstanding these horrible marks, in order to assuage the commotions which began to excite apprehension, and to prevent impostors from hereafter disturbing the empire, he was left three days, exposed to all the people, with only the ornaments of a Holstein officer. His soldiers, disbanded and disarmed, mingled with the crowd; and, as they beheld their sovereign, their countenances indicated a mixture of compassion, contempt, and shame. They were soon afterwards embarked for their country; but, as the sequel of their cruel destiny, almost all of these unfortunate men perished in a storm. Some of them had saved themselves on the rocks adjacent to the coast; but they again fell a prey to the waves, while the commandant of Cronstadt dispatched a messenger to St Petersburgh to know *whether he might be permitted to assist them* (N).

Thus fell the unhappy Peter III. in the 34th year of his age, after having enjoyed the imperial dignity only six months. Whatever may have been his faults or follies, it must be allowed that he suffered dearly for them. Of the violent nature of his death there can scarcely be a doubt, though there appear to be grounds for believing that, however much Catharine must have wished for his removal, she did not take an active part in his death.

139 Catharine II. ascends the imperial throne.

On her accession, Catharine behaved with great magnanimity and forbearance towards those who had opposed her elevation, or were the declared friends of the deceased emperor. She gave to Prince George, in exchange for his title of duke of Courland conferred on him by Peter, the government of Holstein. She reinstated Biren in his dukedom of Courland; received into favour Marshal Munich, who had readily transferred his fidelity from the dead to the living, and even pardoned her rival, the Countess Vorontzoff, and permitted her to retain the tokens of her lover's munificence. She permitted Gudovitch, who, as we have seen, was high in the confidence of Peter, and had incurred her particular displeasure, to retire to his native country. Perhaps the most unexpected part of her conduct towards the friends of Peter, was her adhering to the treaty of peace which that monarch had concluded with the king of Prussia six months before. The death of his inveterate enemy Elizabeth had relieved Frederick from a load of solicitude, and had extricated him from his dangerous situation. He now, as he thought, saw himself

(N) The above account of Peter's assassination is taken chiefly from M. Rulhiere's *Histoire ou Anecdotes sur la Revolution de Russie*, with some modifications from Tooke's *Life of Catharine II.*

Russia.

self again involved in a war with the same formidable power; but to his great joy he found that Catharine, from motives of policy, declined entering on a war at the commencement of her reign.

An. 1764. 140 Assassination of the dethroned tsar.

In one particular the empress showed her jealousy and her fears. She increased the vigilance with which the young prince Ivan was confined in the castle of Schlusselburg, from which Peter III. had expressed a resolution to release him. Not long after her accession, this unfortunate prince was assassinated; though whether this event was to be imputed to the empress or her counsellors, cannot be determined. The circumstances of the assassination are thus related by Mr Tooke, from documents supplied by a manifesto published by the court of Petersburgh, and supposed to be written by the empress herself.

"A lieutenant, named Mirovitch, thinking himself neglected as an officer, conceived a plan to revenge himself on the empress Catharine II. by delivering the captive Ivan from his dungeon, and replacing him on the throne: a plan which, besides the extraordinary difficulties with which it must be attended, seemed unlikely to succeed, as the manner of life to which that prince had all along been condemned, disqualified him forever for the station of a ruler. Yet Mirovitch, capable of any attempt, however inconsiderate, to which he was prompted by his vindictive spirit, found means to gain over a few accomplices to his rash design. The empress having gone on a journey into Livonia in 1764, and he happening to have a command at Schlusselburg, for strengthening the guard at that fortress, whereby he had frequent opportunities of making himself thoroughly acquainted with the place of Ivan's confinement, caused the soldiers of his command to be roused in the night, and read to them a pretended order from the empress commissioning him to set the prince at liberty.

"The soldiers thus taken by surprise, were induced by threats, promises, and intoxicating liquors, to believe what, however, on the slightest reflection, must have struck them as the grossest absurdity. Headed by Mirovitch, they proceeded to the cell of Ivan. The commandant of the fortress, waked out of his sleep by the unexpected alarm, immediately on his appearing, received a blow with the butt end of a musket, which struck him to the ground; and the two officers that had the guard of the prisoner were ordered to submit. Here it is to be observed, that the officers whose turn it was to have the custody of him, had uniformly, from the time of Elizabeth, secret orders given them, that if any thing should be attempted in favour of the prince, rather to put him to death than suffer him to be carried off. They now thought themselves in that dreadful predicament; and the prince who, when an infant of nine weeks, was taken from the calm repose of the cradle to be placed on an imperial throne, was likewise fast locked in the arms of sleep when that throne was taken from him only one year afterwards, and now also enjoying a short respite from misery by the same kind boon of nature, when he was awakened—by the thrust of a sword; and, notwithstanding the brave resistance which he made, closed his eyes for ever by the frequent repetition of the stroke. Such was the lamentable end of this unfortunate prince! of this Russian monarch! The event excited great animadversion throughout the residence; every unbiassed person bewailed the youth so innocently put to death; and incessant crowds of people flocked to see his body in the church of the fortress of Schlusselburg. The government was at length obliged to steal it away by night for inhumation in a monastery at a considerable distance from town. Mirovitch paid the forfeit of this enterprise with his head *.

* Tooke's Hist. of Russia, vol. ii. p. 283.

141 Chronological sketch of the affairs of Russia during the reign of Catharine II.

Were we to offer a detailed account of the principal transactions that took place during the long reign of Catharine, we should far exceed the limits within which this article must be confined, and should at the same time repeat much of what has already been given under other articles. As the events that distinguished the life of Catharine, however, are too important to be wholly omitted, we shall present our readers with the following chronological sketch of them, referring for a more particular account to Mr Tooke's *Life of Catharine II.* and to the articles CATHARINE II. BRITAIN, FRANCE, POLAND, PRUSSIA, SWEDEN, and TURKEY, in this work.

An. 1766.

The year 1766, presented at St Petersburgh the grandest spectacle that perhaps was ever seen in Europe. At an entertainment, which the empress chose to name a carousal, the principal nobility appeared in the most sumptuous dresses sparkling with diamonds, and mounted on horses richly caparisoned, in a magnificent theatre erected for that purpose. Here all that has been read of the ancient jousts and tournaments was realized and exceeded in the presence of thousands of spectators, who seemed to vie with each other in the brilliancy of their appearance.

An. 1768. 142 Establishment of a code of laws.

In 1768, the empress composed instructions for a new code of laws for her dominions; and the same year she submitted to the danger of inoculation, in order that her subjects, to whom the practice was unknown, might be benefited by her example; and the experiment, under Baron Dimsdale, having happily succeeded, it was commemorated by an annual thanksgiving.

143 War with the Turks.

In the same year a war broke out with the Ottoman Porte. The various events of this long and important conflict, which continued for seven years, must here be only briefly enumerated, as they will hereafter be more particularly noticed under the article TURKEY. In this war, our countryman Greig, then an admiral in the Russian service, highly distinguished himself by his conduct in a naval engagement with the Turks, in the harbour of Tschesme in the Archipelago, in which the Turkish fleet was entirely defeated, and their magazines destroyed. This took place on the 4th of November 1772.

An. 1769. 144 Progress and conclusion of the war with Turkey.

In the beginning of the year 1769, the khan of the Krimea made an attack on the territory of Bachmut on the river Bog, where he was several times bravely repulsed, with his army of Tartars and Turks, by Major-general Romanius and Prince Prosorofskoi. At the same time were fought the battles of Zekanofca and Soroca on the Dniepr, when the large magazines of the enemy were burned. In February the Polish Kozaks in the voyvodeship of Braclau put themselves under the Russian sceptre. In the same month the Nisovian Saparogian Kozaks gained a battle in the deserts of Krim. In March the Polish rebels were subdued, and their town taken by Major-general Ismailof. April 2. the fort of Taganrock, on the sea of Azof, was taken. On the 15th the Russian army, under the general in chief Prince Galitzin, crossed the Dniestr. On the 19th a victory was gained by Prince Galitzin near Chotzim. On the 21st the Turks were defeated

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not far from Chotzim by Lieutenant-general Count Soltikof. The 29th, an action was fought between the Russian Kalmucks and the Kuban Tartars, to the disadvantage of the latter. June 8th, the Turks were defeated at the mouth of the Dniepr near Otchakof. 19th, An action took place on the Dniestr, when the troops of Prince Prosorofskoi forced the Turks to repass the river in great disorder. Chotzim was taken September 19th. Yassy, in Moldavia, was taken 27th September. Bucharest, in Vallachia, was taken, and the hospodar made prisoner, in November 1770. A victory was gained by the Russians under Generals Podhorilshany and Potemkin, near Fokshany. The town of Shursha was taken by Lieutenant-general Von Stoffeln, Feb. 4. A Russian fleet appeared in the port of Maina in the Morea, Feb. 17. Mistra, the Lacedæmon of the ancients, and several other towns of the Morea, were taken in February. Arcadim in Greece surrendered, and a multitude of Turks were made prisoners, in the same month. The Turks and Tartars were driven from their entrenchments near the Pruth, by Count Romantzof, Prince Repnin, and General Bauer, 11th—16th June. Prince Prosorofskoi gained several advantages near Otchakof, June 18. The Russian fleet, under Count Alexey Orlof, gained a complete victory over the Turks near Tscheme, June 24th; the consequence of this victory was the destruction of the whole Turkish fleet, near Tscheme, where it was burned by Admiral Greig, June 26. A battle was fought on the Kagul, in which Count Romantzof defeated the Turkish army, consisting of 150,000 men, took their camp, and all the artillery, July 21. The fortress Bender was taken July 22. The town of Ismail was taken by Prince Repnin, July 26. Kilia by Prince Repnin, August 21. and Ackerman in October. Brailof was taken, November 10. 1771. The fortress of Shursha by General Olitz, on February 23.; the town of Kaffa by Prince Dolgoruckof, June 29.; the fort of Kertchi, July 2.; the fort of Yenicali, July 3.; and numberless other victories were obtained by sea and land, till the peace was concluded the 13th January 1775. By this the Krimea was declared independent of the Porte, all the vast tract of country between the Bog and Dniepr was ceded to Russia, besides the Kuban and the isle of Taman, with free navigation in all the Turkish seas, including the passage of the Dardanelles, privileges granted to the most favoured nations, and stipulations in behalf of the inhabitants of Moldavia and Vallachia.

An. 1779. 145 Division of the empire into viceroyalties.

In 1779, the empress intending to divide the empire into viceroyalties, began in January with the viceroyalty of Orlof. March 21. a new treaty was signed at Constantinople between Russia and the Porte. May 13. the treaty of peace between the belligerent powers in Germany, and the French king, was signed under the mediation of her majesty. In June she established an hospital for invalids at Mosco, to be confined to officers. In July, General Bauer received orders to cause a canal to be cut to supply Mosco with wholesome water. In October, a ship built at Taganrock, named the Prince Constantine, sailed to Smyrna with Russian commodities. December 3. the viceroyalty of Voronetsh was instituted; and the 27th, Count Romantzof Zadunaiski opened the viceroyalty of Kursk with great solemnity.

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An. 1780. 146 The emperor of Germany visit Russia.

In 1780, February 28. appeared the memorable declaration of her imperial majesty, relating to the safety of navigation and commerce of the neutral powers. May 9. the empress set out on a journey to White Russia from Zarscoi Selo, visited Narva, Plescof, met the emperor of Germany under the title of Count Falkenstein at Mohilef, and they pursued the journey together to Smolensk. June 6. Count Falkenstein arrived at Mosco. The 17th, the empress returned to Zarscoi Selo, and the count Falkenstein arrived at St Petersburgh. July 8. the emperor returned to Vienna.

An. 1781. 147 Establishment of public schools in St Petersburgh.

In 1781, March 1. the empress became mediatrix between England and Holland. April 5. instituted the first public school in St Petersburgh. August 27. the grand dukes, Alexander and Constantine, were inoculated by Baron Dimsdale. August 31. the first stone of a cathedral was laid at Cherson, dedicated to St Catherine. September 19. the grand duke, Paul Petrovitch, and his consort, Maria Feodorovna, departed from Zarscoi Selo, through Plescof, Mohilef, and Kief, on a journey into foreign countries, under the title of Count and Countess of the North.

An. 1782. 148 Statue of Peter the Great finished.

In 1782, by a command of her majesty, dated January 18. a Roman Catholic Archbishop was installed in the city of Mohilef, with authority over all the Catholic churches and convents in the Russian empire. August 7. the famous equestrian statue of Peter the Great, being finished, was uncovered to the public in presence of the empress, on which occasion she published a proclamation containing pardons for several criminals, &c. (G). November 22. the order of St Vladimir was instituted. The 27th, the empress published a new tariff. November 20. the grand duke and his duchess, having completed their travels through Germany, Italy, France, Holland, the Netherlands, &c. returned to St Petersburgh.

An. 1783. 149 Various accessions to the Russian empire.

In 1783, May 7. the empress instituted a seminary for the education of young persons of quality at Kursk. June 21. a treaty of commerce concluded with the Ottoman Porte. July, the institution of the other viceroyalties of the empire followed in succession. July 21. the empress published a manifesto by her commander in chief Prince Potemkin, in the Krim, in regard to the taking possession of that peninsula, the Kuban, and the island of Taman. The 24th, a treaty was concluded with Heraclius II. tzar of Kartalinia and Kachetti, by which he submitted himself, his heirs and successors for ever, with his territories and dominions, to the sceptre of her majesty, her heirs and successors. The 29th account was received from the camp of Prince Potemkin at Karas-Basar, that the clergy, the beys, and other persons of distinction, with the towns of Karas-Basar, Bachtshiserai, Achmetchet, Kaffa, Kosloff, with the districts of Turkanskoikut and Neubasar, and that of Perekop, in the peninsula of the Krim, together with the hordes of Edi-sank and Dshambolusk, the sultan Alim Girey, and his vassals, with all the Budshaks and Bashkirs there, and all the tribes dwelling beyond the river Kuban, the sultan Boatur Girey and his vassals, took the

(G) For a description of this extraordinary statue, see PETERSBURGH.

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the oath of allegiance to her imperial majesty, and with willing hearts submitted for ever to her glorious sway. The 30th, the hospodar of Vallachia was deposed, and Draco Sutzo set up in his place. September 22. her majesty raised Gabriel, archbishop of Novgorod and St Petersburgh, to the dignity of metropolitan. October 21. in the great hall of the Academy of Sciences, the new institution of the Imperial Russian academy was opened, after a most solemn consecration by the metropolitan Gabriel, and others of the clergy, under the presidency of the princess Dashkoff. November 7. the empress became mediatrix for accommodating the differences between the king of Prussia and the city of Dantzic. The school for surgery was opened at St Petersburgh on the 18th. December 13. a school commission was instituted for superintending all the public schools. The 28th, an act was concluded with the Ottoman Porte, by which the possession and sovereignty of the Krim, the Kuban, &c. were solemnly made over to the empress.

150 Imperial academy of St Petersburgh opened.

An. 1784. 1784. January 1. the senate most humbly thanked her majesty for the benefactions which she had graciously bestowed on the whole empire in the preceding year, in a speech by Field-marshal Count Razomofskoi. The 18th, the Roman Catholic archbishop of Mohilef, Stanislaus Tshesrentshevitch of Bogush, constituted by her majesty, was, with a variety of church ceremonies, solemnly invested, in the Roman Catholic church at St Petersburgh, with the pallium from his holiness the pope, by the papal ambassador Count Archetti, archbishop of Chalcedon. October 14. the Lesgiers, having crossed the river Alasan, and invaded the dominions of Georgia, were repulsed with great loss by a detachment of Russian troops. December 29. Katolikos Maksim, the serdar and court-marshal Prince Zeretelli, and the chief justice Kuinichese, ambassadors from David, tzar of Imeretia, were admitted to a public audience of her majesty, at which they submitted, in the name of the tzar, him, and his subjects, to the will and powerful protection of her imperial majesty, as the rightful head of all the sons of the orthodox eastern church, and sovereign ruler and defender of the Georgian nations.

151 Georgia annexed to the Russian empire.

An. 1785. 152 Several provincial schools established. 1785. January 1. the senate in the name of the empire, humbly thanked her majesty for the benefits she had bestowed upon it during the preceding year. The 8th and 15th, the empress in person, held a public examination of the young ladies educated in the Devitza Monastery. The 12th, Mauro Cordato, hospodar of Vallachia, was deposed; and Alexander Mauro Cordato, his uncle, restored to that dignity. The 21st, the empress visited the principal national school, and passed a long time in examining the classes, and the proficiency of the youth in that seminary; on which occasion a marble tablet was fixed in the wall of the fourth class, with this inscription, in gold letters: THOU VISITEST THE VINEYARD WHICH THY OWN HAND HATH PLANTED. Jan. 21. 1785. April 21. the privileges of the nobility were confirmed; and, on the same day, the burghers of towns constituted into bodies corporate, by a particular manifesto. The public school in Voronetsk was opened. The 24th of May, her majesty went to inspect the famous sluices at Vishney Volotshok, and other water communications, and from thence proceeded to Mosco. June 19. her majesty returned to St Petersburgh. July 3. she visited the hardware manufactories at Sisterbeck, in Finland. 14th, A manifesto was issued, granting full liberty of religion and commerce, to all foreigners settling in the regions of Mount Caucasus, under the Russian government. September 15. the public school at Nishney Novgorod was opened. October 12. the Jesuits in White Russia, in a general assembly, elected a vicar general of their order. November 1. a treaty of commerce was concluded with the emperor of Germany. The 24th, the Russian consul, in Alexandria, made his public entry on horseback (an honour never before granted to any power); erected the imperial standard on his house, with discharge of cannon, &c. December 28. a Russian mercantile frigate, fully freighted, arrived at Leghorn from Constantinople.

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An. 1786. 1786. January 1. the senate returned thanks for the benefits conferred on the empire. From the 11th to the 16th the new election of persons to the offices in the Petersburgh government, ending with masquerade and illuminations, took place. The 29th, the empress confirmed the plan of a navigation school. February 12. by a decree, the usual slavish subscriptions to petitions were to be discontinued; and, instead of them, only the words *humble* or *faithful subject*; and, in certain cases, only *subject* were ordained to be used. March 2d, the empress granted the university of Mosco 125,000 rubles, and all the materials of the palace Kremlin for increasing its buildings. The 25th, a decree was passed for making and repairing the roads throughout the whole empire at the sole expence of the crown, and 4,000,000 of rubles were immediately allotted for the road between St Petersburgh and Mosco. April 10th, a new war establishment for the army was signed; 23d, the hospodar of Vallachia was deposed, and Mavroyeni set up in his place. June 28th, the empress instituted a loan bank at St Petersburgh, to the fund whereof she allotted 22,000,000 to be advanced to the nobility, and 11,000,000 to the burghers of the town, on very advantageous terms. August 5th, there were published rules to be observed in the public schools. October 4th, a large Russian ship, with Russian productions from St Petersburgh, arrived at Cadiz. November 24th, the empress erected public schools at Tambof. December 14th, Prince Ypsilanti was appointed hospodar of Moldavia in the room of the deposed Mauro Cordato. December 31st, a treaty of commerce and navigation was concluded between Russia and France.

153 The roads repaired at the expence of government.

154 A loan bank established.

An. 1787. 155 Progress of Catharine through part of the empire. 1787. January 7. the empress departed from Zarskoi Selo on a journey to her southern dominions; 29th, after having visited the towns of Veleki-Luki, Smolensk, Sterodub, Novgorod Severskoi, Beresna, Tshernigof, &c. leaving testimonies of her clemency and bounty in each, arrived at Kief. February 6-7th, the deposed hospodar of Moldavia, Mauro Cordato, thinking his life not safe in Yassi, found an opportunity privately to escape. March, public schools were endowed and opened at Rostof, Uglitsh, Molaga, and Romanof in the viceroyalty of Yaroslavl; also at Usting and Arasovitz in the viceroyalty of Vologda. April 21st, a manifesto was issued for promoting peace and concord among the burghers of the empire. The 22d, her majesty pursued her journey from Kief, to the Dniepr. The 25th, the concerted interview between her and the king of Poland, near the Polish town of Konief, took place. The 30th,

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30th, the empress visited Krementshuk in the viceroyalty of Katarinoslauf. The treaty of commerce with England being expired, the British factory were informed that they must henceforward pay the duties on imports in silver money, like the other nations who had no commercial treaty. May 7th, the empress hearing that the emperor of Germany was at Cherson, proceeded thither, and met him there on the 12th. The 17th, she prosecuted her journey to the Krim. June 2d, the emperor, after travelling with her majesty through the Krim, took leave of her at Borislauff, in the viceroyalty of Katarinoslauf, on his way home. 23d, The empress having returned from the Krim, through Krementskuk, Pultava, Karsk, Orel, and Tula, arrived at the village of Kolomensk, seven versts from Mosco. June 28th, the 25th anniversary of her reign, she displayed various marks of her bounty. The debtors to the crown were forgiven, prisoners released, imposts taken off, soldiers rewarded, &c. July 4th, returned over Tver, Tula, Valdai, Vishnei-Volotshok, and Novgorod, to Zarskoi-Selo, where she arrived the 11th. The 12th, the new built school at Riga, called *Lyceum*, was solemnly dedicated. August 5th, Bulgakoff, the Russian ambassador, at the Ottoman Porte, was imprisoned in the Seven Towers, contrary to the law of nations, which the empress regarded as a public declaration of war. 21st, The Turkish fleet at Otchakof, attacked the Russian frigate Skorui, and the sloop Bitingi, but was repulsed and put to flight by the bravery of the latter. Many signal advantages were gained over the Turks; several public schools founded in various parts of the empire between this and August following; during which time the war broke out with Sweden.

156 Renewal of hostilities with Turkey.

An. 1788. 157 War with Sweden.

1788. August 12th, in the expedition beyond the Kuban, the Russian troops entirely routed a company of 4000 Arutayans and Alcasinians; 800 of the enemy were slain, and five villages destroyed. 15th, The surrender of the Turkish fortress of Dubitsha took place. 18th, The Turks made a violent sortie from Otchakof, but were repulsed by the Russian yagers; and, after a battle of four hours, were driven back with the loss of 500 men. 23d, A fierce battle was fought between the Russian troops and Sacubanians, in which the latter lost 1000 men. The Russian fleet kept the Swedish blocked up in Sveaborg, ever since the battle of July 6th. The Swedish army left the Russian territory in Finland. September 18th, the town and fortress of Chotzim surrendered to the Russians, with the garrison of 2000 men, 153 cannon, 14 mortars, and much ammunition. 19th—29th, A small Russian squadron from the fleet at Sevastophol, cruising along the coast of Anatolia, destroyed many of the enemy's vessels, prevented the transporting of the Turkish troops, and returned with great booty. 20th, Ussenier Shamanachin, chief of the Bsheduchovians, was on his petition, admitted a subject of Russia. 26th, A numerous host of Kubanians and Turks were beaten on the river Ubin, with the loss of 1500 men. November 7th, Prince Potemkin, at the head of his Kozaks, took the island Beresan, with many prisoners and much ammunition. December 6th, the town and fortress of Otchakof were taken by Prince Potemkin Tavritsheskoi; 9510 of the enemy were killed, 4000 taken prisoners, 180 standards, 310 cannons and mortars. The whole of the inhabitants were taken prisoners, amounting to 25,000; the Russians lost 956 killed and 1824 wounded. December 19th, General Kamenskoy gained considerable advantages over the Turks near Gangur.

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An. 1789. 158 Numerous victories over the Turks and Swedes.

1789. April 16th, Colonel Rimskoy Korsakoff was surrounded by the Turks, who were beaten, with great slaughter, by Lieutenant-General Von Derfelden. 17th—28th, Some Russian cruisers from Sevastopal effected a landing on Cape Karakarman, burnt six mosques, and carried off great booty. 20th, General Derfelden drove the Turks from Galatch, gained a complete victory, killed 2000, took 1500 prisoners, with the seraskier Ibrahim Pasha, and the whole camp. Several skirmishes took place between the Russians and Swedes in Finland, always to the advantage of the former. May 31st, another victory was gained over the Swedes. June 5th, Sulkof was taken from the Swedes, and Fort St Michael on the 8th. July 15th, Admiral Tchitchagoff engaged the Swedish fleet under the command of the duke of Sudermania; but no ship was lost on either side. 21st, A battle was fought at Fokshany to the great loss of the Turks, and Fokshany was taken. August 13th, the Russian galley fleet fought the Swedish under Count Ehrenschwerdt, the former took a frigate and five other ships, and 2000 prisoners. August 21st, another sea fight took place, and Prince Nassau Siegen made good his landing of the Russian troops in sight of the king of Sweden at the head of his army. September 7th, Prince Repnin attacked the seraskier Hassan Pasha near the river Seltska, and took his whole camp. 11th, Count Suvaroff and prince of Saxe Cobourg engaged near the river Kymnik the grand Turkish army of nearly 100,000 men, and gained a complete victory; from which Count Suvaroff received the surname Kymnikskoi. 14th, The Russian troops under General Ribbas, took the Turkish citadel Chodshabey, in the sight of the whole of the enemy's fleet. 30th, The fortress Palanka being taken, the town of Belgorod or Akermann surrendered to Prince Potemkin Tavritsheskoi. November 4th, the town and castle of Bender submitted at discretion to the same commander.

An. 1790. 159 Peace with Sweden.

1790, April 24. General Numsen gained a victory over the Swedes near Memel. May 2d, a sea fight took place off Reval, in which the Russians took the Prince Charles of 64 guns from the Swedes; and in this engagement those two gallant English officers, Captains Trevennin and Dennison, were killed. 23d, the fleet under Vice-admiral Cruse engaged the Swedish fleet near the island Siskar in the gulf of Finland, without any advantage being gained on either side, though they fought the whole day. 24th, an action was fought at Savataipala, when the Swedes were forced to fly. June 6. the Swedes were defeated by Major Buxhovden, on the island Uransari. June 22. the whole Swedish fleet, commanded by the duke of Sudermania, was entirely defeated by Admiral Tchishagoff and the prince of Nassau Siegen; on this occasion 5000 prisoners were taken, amongst whom were the centre admiral and 200 officers. 28. General Denisoff defeated the Swedes near Davidoff. July 9. Admiral Ushakoff obtained a victory over the Turkish fleet commanded by the capudan pasha, at the mouth of the straits of Yenikali. August 3. peace was concluded with Sweden, without the mediation of any other power. August 28, 29. an engagement took place on the Euxine, not far from Chodshabey, between the Russian admiral Ushakoff

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koff and the capudan pasha, when the principal Turkish ship, of 80 guns, was burnt, one of 70 guns, and three taken, the admiral Said Bey being made prisoner, and another ship sunk; the rest made off. September 30. a great victory was obtained over the Turks by General Germann, with much slaughter, and the seraskier Batal Bey, and the whole camp, were taken. October 18. Kilia surrendered to Major Bibbas. November 6, 7. the fortress Cultsha and the Turkish flotilla were taken. December 11. the important fortress of Ismail, after a storming for seven hours without intermission, surrendered to Count Suvaroff, with the garrison of 42,000 men; 30,816 were slain on the spot, 2000 died of their wounds, 9000 were taken prisoners, with 265 pieces of cannon, an incredible store of ammunition, &c. The Russians lost only 1815 killed, and 2450 wounded.

An. 1791. 160 The Turks repeatedly defeated,

1791, March 25—31. the campaign opened by the troops under Prince Potemkin, not far from Brailof, when the Turks were defeated in several battles, in which they lost upwards of 4000 men. June 5. the troops under General Golenitshef Kutusoff, near Tultsha, drove the Turks beyond the Danube, and at Babada entirely routed a body of 15,000 men, of whom 1500 were left dead upon the field. 22. The fortress Anapuas was taken by storm, when the whole garrison, consisting of 25,000 men, were put to the sword, excepting 1000 who were taken prisoners. 28. The troops under Prince Repnin attacked the Turkish army, consisting of nearly 80,000 men, commanded by the grand vizir Yussuf Pasha, eight pashas, two Tartar sultans, and two beys of Anatolia; and after a bloody battle of six hours, entirely routed them: 5000 Turks were killed in their flight. June 28. Sudskuk Kale was taken. July 31. Admiral Ushakoff beat the Turkish fleet on the coasts of Rumelia. Prince Repnin and Yussuf Pasha signed the preliminaries of peace between the Russian empire and the Ottoman Porte, by which the Dniestr was made the boundary of the two empires, with the cession of the countries lying between the Bog and the Dniestr to Russia. August 15, 16. at Pilnitz near Dresden, a congress was held by the emperor of Germany, the king of Prussia, the elector of Saxony, the count d'Artois, &c. &c. One of the most important events in this year was the death of Prince Potemkin at Yassy in Moldavia on the 15th October.

161 and obliged to make peace.

An. 1792. 162 Fresh invasion of Poland.

1792. Early in this year Bulgakoff, the Russian minister at Warsaw, declared war against Poland; and the Polish patriots raised an army in which Thaddeus Kosciusko (or according to some Koschiefsky) soon bore a conspicuous part.

In 1788, the diet of Poland had abrogated the constitution which the empress of Russia had, in 1775, compelled that nation to adopt, and had formed an alliance with the king of Prussia, by way of defence against the further encroachments of the Russian despot. Three years after, viz. on the third of May 1791, the new constitution which was intended further to destroy the ambitious hopes of Catharine, was decreed at Warsaw. See Poland, N° 125. These were affronts which the Russian empress could not forgive, and in one of the *conciliabula*, in which the ministers of state, and the favourite for the time being, sat to regulate the affairs of the north of Europe, and to determine the fate of the surrounding nations, the annihilation of the Polish monarchy was resolved on.

The declaration of war above mentioned was denounced by Bulgakoff at an assembly of the diet. See Poland, N° 148. That body received the declaration with a majestic calmness, and resolved to take measures for the defence of the nation. The generous enthusiasm of liberty soon spread throughout the republic, and even the king pretended to share in the general indignation. An army was hastily collected, and the command of it bestowed on Prince Joseph Poniatofsky, a general whose inexperience and frivolous pursuits were but ill adapted to so important a charge.

In the mean time several Russian armies were preparing to overwhelm the small and disunited forces of the Poles. A body of 80,000 Russians extended itself along the Bog; another of 10,000 was collected in the environs of Kief, and a third of 30,000 penetrated into Lithuania. While these armies were carrying murder and desolation through the Polish territories, Catharine was employing all her arts to induce the neighbouring powers to join in the partition of Poland, and in this she was but too successful. A treaty was accordingly concluded between the empress and the king of Prussia, by which either appropriated to itself a certain share of the remains of Poland. Stanislaus Augustus, the powerless head of that republic, was prevailed on to make a public declaration, that there was a necessity for yielding to the superiority of the Russian arms.

An. 1793.

1793. On the 9th of April the Polish confederation of the partizans of Russia assembled at Grodno; and on this occasion the Russian general placed himself under the canopy of that throne which he was about to declare for ever vacant, and the Russian minister Sievers, produced a manifesto, declaring the intention of his mistress to incorporate with her domains all the Polish territory which her arms had conquered.

The Russian soldiers dispersed through the provinces, committed depredations and ravages of which history furnishes but few examples. Warsaw became especially the theatre of their excesses. Their general Igelstrom, who governed in that city, connived at the disorders of the soldiers, and made the wretched inhabitants feel the whole weight of his arrogance and barbarity. The patriots of Poland had been obliged to disperse; their property was confiscated, and their families reduced to servitude. Goaded by so many calamities, they once more took the resolution to free their country from the oppression of the Russians, or perish in the attempt. Some of them assembled, and sent an invitation to Kosciusko, to come and lead them on against the invaders of their freedom.

Kosciusko had retired to Leipsic with Kolontay, Zagonchek, and Ignatius Pottocky, all eminent for patriotism and military ardour. These four Poles hesitated not a moment in giving their approbation to the resolution adopted by their indignant countrymen; but they were sensible that, in order to succeed, they must begin by emancipating the peasants from the state of servitude under which they then groaned. Kosciusko and Zagonchek repaired with all expedition to the frontiers of Poland, and the latter proceeded to Warsaw, where he held conferences with the chief of the conspirators, and particularly with several officers who declared their detestation of the Russian yoke. All appeared ripe for a general insurrection, and the Russian commanders, whose suspicions had been excited by the appearance of Kosciusko

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ciusko on the frontiers, obliged that leader and his confederates to postpone for a time the execution of their plan. To deceive the Russians, Kosciusko retired into Italy, and Zagonchek repaired to Dresden, whither Ignatius Potoski and Kolontay had gone before him. On a sudden, however, Zagonchek appeared again at Warsaw, but was impeached by the king to General Igelstrom, and, in a conference with the general, was ordered to quit the Polish territory. He must now have abandoned his enterprise altogether, or immediately proceeded to open insurrection. He chose the latter.

An. 1794. 163 Attempts of the patriots to oppose the incroachments of Russia.

1794. Kosciusko was recalled from Italy, and arrived at Cracow, where the Poles received him as their deliverer. Here he was joined by some other officers, and took the command of his little army, consisting of about 3000 infantry, and 1200 cavalry. On the 24th of March was published the manifesto of the patriots, in which they declared the motives for their insurrection, and called on their countrymen to unite in the glorious attempt to free the republic from a foreign yoke. Kosciusko was soon joined by 300 peasants armed with scythes, and some other small reinforcements gradually came in. A body of 7000 Russians had collected to oppose the movements of this little army, and a battle took place, in which the patriots were successful.

While the insurrection had thus auspiciously commenced on the frontiers, the confederates of the capital were nearly crushed by the exertions of the Russian general. Hearing at Warsaw of the success of Kosciusko, Igelstrom caused all those whom he suspected to have any concern in the insurrection, to be arrested; but these measures served only to irritate the conspirators. On the 18th of April they openly avowed their confederacy with the patriots of the frontiers, and proceeded in great numbers to attack the Russian garrison. Two thousand Russians were put to the sword, and the general being besieged in his house, proposed a capitulation; but profiting by the delay that had been granted him, he escaped to the Prussian camp, which lay at a little distance from Warsaw.

Wilna, the capital of Lithuania, followed the example of Warsaw, but the triumph of the insurgents was there less terrible, as Colonel Yasinsky, who headed the patriots, conducted himself with so much skill, that he made all the Russians prisoners without bloodshed. The inhabitants of the cantons of Chelm and Lublin, also declared themselves in a state of insurrection, and three Polish regiments who were employed in the service of Russia, espoused the cause of their country. Some of the principal partizans of Russia were arrested, and sentenced to be hanged.

Kosciusko exerted himself to the utmost to augment his army. He procured recruits among the peasants, and to inspire them with the more emulation, he adopted their dress, ate with them, and distributed rewards among such as appeared most to merit encouragement. All his attempts to inspire the lower orders of the Poles with the ardour of patriotism were, however, unavailing. A mutual distrust prevailed between the nobles and the peasants, and this was fomented by the arts of Stanislaus and the other partizans of Russia.

The empress had sent into Poland two of her best generals, Suvaroff and Fersen. For some time Kosciusko succeeded in preventing the junction of these generals, and several engagements took place between the Russians and partriots, in which the former were generally successful. At length, on the 4th of October the fate of Poland was decided by a sanguinary conflict between Kosciusko and Fersen, at Maciejovitch, a small town of Little Poland, about 60 miles from Warsaw. The talents, the valour, and desperation of Kosciusko, could not prevent the Poles from yielding to superior numbers. Almost the whole of his army was either cut in pieces, or compelled to surrender at discretion, and the hero himself, covered with wounds, fell senseless on the field of battle, and was made prisoner.

164 Final dismemberment of Poland.

The small number that escaped fled to Warsaw, and shut themselves up in the suburb of Praga. Hither they were pursued by Suvaroff, who immediately laid siege to the suburb, and prepared to carry it by storm. On the 2d of November, the brutal Suvaroff gave the assault, and having made himself master of the place, put to the sword both the soldiers and the peaceable inhabitants, without distinction of age or sex. It is computed that 20,000 persons fell victims to the savage ferocity of the Russian general; and, covered with the blood of the slaughtered inhabitants, the barbarian entered Warsaw in triumph.

Thus terminated the feeble resistance of the Polish patriots. The partition of the remaining provinces was soon effected, and Stanislaus Augustus, who had long enjoyed merely the shadow of royalty, and had degraded himself by becoming the instrument of Russian usurpation, retired to Grodno, there to pass the remainder of his days on a pension granted him by the empress.

An. 1795.

1795. On the 18th of February, a treaty of defensive alliance between the empress of Russia and his Britannic majesty was signed at St Petersburgh. The ostensible object of this treaty was to maintain the general tranquillity of Europe, and more especially of the north; and by it Russia agreed to furnish Great Britain with 10,000 infantry and 2000 horse in case of invasion; while Great Britain was, under similar circumstances, to send her imperial majesty a squadron consisting of two ships of 74 guns, six of 60, and four of 50, with a complement of 4560 men. On the 18th March was signed the act by which the duchies of Courland and Semigallia, together with the circle of Pilten, all which had lately belonged to the duke of Courland, but had long retained only the shadow of independence, submitted themselves to the Russian dominion.

165 Dispute with Sweden.

In this year there took place between the courts of St Petersburgh and Stockholm, a dispute which threatened to terminate in a war. Gustavus III. had been assassinated by Ankerstroem at a masquerade, on the 15th March 1791, and the young king Gustavus Adolphus being still a minor, the duke of Sudermania, his uncle, had been appointed regent of the kingdom. The regent had determined to effect a marriage between his nephew and a princess of the house of Mecklenburg; but Catharine publicly declared that the late king had betrothed his son to one of her granddaughters. The misunderstanding hence originating, was increased by the rude and indecorous behaviour of the baron Von Budberg, the Russian *charge des affaires* at Stockholm, and matters seemed tending to an open rupture; when in 1796, a French emigrant named Christin effected a reconciliation, and General Budberg, the baron's uncle, was sent

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sent as ambassador to Stockholm from the Russian court. In consequence of this reconciliation, the young king, attended by the regent, and a numerous train of Swedish courtiers, set out on a visit to St Petersburgh, where they arrived on the 24th of August, and an interview took place between the empress and her royal visitors, for the purpose of finally adjusting the projected matrimonial alliance. Gustavus Adolphus was much pleased with the appearance of the grand duchess Alexandra; but informed the empress, that by the fundamental laws of Sweden he could not sign the marriage contract before the princess had abjured the Greek religion; and as neither the solicitations nor the flatteries of Catharine could prevail on the young monarch to depart from the received custom of his country, the negociation ended, and the next day Gustavus and his retinue quitted St Petersburgh.

The last transaction of importance in the reign of Catharine was her invasion of the Persian territories, undertaken for the purpose of acquiring certain possessions on the shores of the Caspian. A Russian army entered Daghestan, and made itself master of Derbent, but was afterwards defeated by the Persians under Aga Mahmed.

The death of the empress took place, as we have elsewhere stated, on the 9th of November of this year; and the grand duke Paul Petrovitch ascended the throne under the title of Paul I.

An. 1796. 166 Reign of Paul.

Paul Petrovitch had attained his 42d year before the death of his mother placed him on the imperial throne; but for many years before her death, he had lived in a state of comparative obscurity and retirement, and had apparently been considered by the empress as incapable of taking any active part in the administration of affairs. It is well known that Catharine never admitted him to any participation of power, and kept him in a state of the most abject and mortifying separation from court, and in almost total ignorance of the affairs of the empire. Although by his birth he was generalissimo of the armies, president of the admiralty, and grand admiral of the Baltic, he was never permitted to head even a regiment, and was interdicted from visiting the fleet at Cronstadt. From these circumstances it is evident that the empress either had conceived some jealousy of her son, or saw in him some mental imbecility, that appeared to her to disqualify him for the arduous concerns of government. There is little doubt, from the circumstances which distinguished his short reign, that Catharine had been chiefly influenced in her treatment of the grand duke, by the latter consideration. There were certainly times at which Paul displayed evident marks of insanity, though he occasionally gave proofs of a generous and tender disposition, and even of intellectual vigour.

It is generally believed that, a short time before her death, Catharine committed to Plato Zuboff, her last favourite, a declaration of her will, addressed to the senate, desiring that Paul should be passed over in the succession, and that on her death the grand duke Alexander should ascend the vacant throne. As soon as Zuboff was made acquainted with the sudden death of the empress, he flew to Pavlovsk, about 23 miles from St Petersburgh, where Paul occasionally resided, but meeting the grand duke on the road, he, after a short explanation, delivered up the important document. Paul, charmed with his zeal and loyalty, rewarded the late favourite, by permitting him to retain the wealth and honours which had been heaped on him by his mistress, while a general and rapid dispersion soon took place among the other adherents of the late sovereign. On the day following the death of his mother, Paul made his public entry into St Petersburgh, amidst the acclamations of all ranks of people.

167 Singular funeral of Peter III.

One of the first measures adopted by the new emperor excited considerable surprise, and divided the opinions of the public with respect to the motives by which it had been suggested; some attributing it to his respect for the memory of his late father; others to a culpable reflection on that of his mother. He ordered the remains of Peter III. to be removed from the sepulchre in which they had been deposited in the church of St Alexander Nefski, and caused him to lie in state for three weeks, while they were watched night and day by the only two remaining conspirators who had assisted at his assassination. After this dreadful mark of his justice on the murderers of his father (surely more terrible to the guilty mind than death itself), he consigned the ashes to the sepulchre of Catharine II. in the cathedral of St Peter and St Paul, obliging the assassins to walk in the procession as chief mourners.

Few political events of any importance marked the reign of Paul previous to the year 1798, when, in consequence of a treaty between Paul and the emperor of Germany, a Russian army of 45,000 men under Field-marshal Suvaroff, joined the imperialists in the Austrian territories in Italy. The progress of Suvaroff, his successes over Moreau, and his final recal by his master, have already been related in the article FRANCE, from 498 to 506.

An. 1799. 168 Treaty of alliance between Russia and Britain.

In 1799, Paul entered into a treaty of offensive and defensive alliance with his Britannic majesty. This treaty was signed at St Petersburgh on the 22d of June, having been preceded by a provisional treaty between the same powers at the end of the year 1798. By the provisional treaty it had been stipulated that Paul should assist the king of Prussia, if the latter could be persuaded to join his arms to the allied powers against France, with 45,000 men; and that the king of Great Britain should pay to Russia a subsidy of L.75,000 sterling per month; and in case the king of Prussia should refuse to join the coalition, the same number of troops, in consideration of the same subsidy, should be employed as occasion might require, to assist the common cause. By the new treaty, the emperor of Russia, instead of the 45,000 troops, engaged to furnish 17,593, with the necessary artillery, to be employed in an expedition against Holland; and he engaged to furnish six ships, five frigates, and two transports, for the purpose of transporting part of the invading army from Britain, to the continent. In consideration of these succours, the court of London engaged to advance to Russia a subsidy of L.44,000 sterling per month; to pay the sum of L.58,929 10s. sterling for the expences of equipping the fleet; and after the period of three months had elapsed from such equipment, to pay a further subsidy of L.19,642, 10s. sterling per month, so long as the fleet should remain under the command of his Britannic majesty.

In consequence of this treaty, a Russian fleet joined that

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that of Britain in Yarmouth roads, and took part in the unfortunate expedition to the coast of Holland, undertaken in the summer of 1799. See BRITAIN, N° 1069.

An. 1801.

169 Paul's challenge to the sovereigns of Europe!

In the beginning of the year 1801, all Europe was thrown into the greatest astonishment by the appearance of a paragraph in the Hamburgh gazette of the 16th of January. The paragraph was dated from Petersburgh, the 30th December, 1800, and is as follows.

"We learn from Petersburgh, that the emperor of Russia, finding that the powers of Europe cannot agree among themselves, and being desirous to put an end to a war which has desolated it for 11 years past, intends to point out a spot, to which he will invite all the other sovereigns to repair and fight in single combat; bringing with them as seconds and squires, their most enlightened ministers, and their most able generals, such as Messrs Thugot, Pitt, Bernstorff, &c. and that the emperor himself proposes being attended by generals count de Pahlen and Khutosof: We know not if this report be worthy of credit; however, the thing appears not destitute of some foundation, and bears strong marks of what he has been often taxed with."

This paragraph was immediately copied or translated into all the public papers, and it was strongly affirmed by many, that it was the composition of Paul himself. This has since been confirmed by the poet Kotzebue, who was employed by the emperor of Russia to translate the original into German, for the express purpose of its being inserted in the Hamburgh gazette (H).

170 Other marks of the emperor's derangement.

This was not the only mark of mental derangement displayed by the unhappy monarch. His favours and his displeasure were alternately experienced by some of his most distinguished courtiers and adherents. Stanislaus, the deposed king of Poland, partook by turns of his beneficence and his severity; and at length on the death of that monarch, Paul assisted at his funeral, commanded in person the guards that attended on the ceremony, and uncovering himself with the utmost emotion, saluted the coffin as it passed. To the memory of the hoary Suvaroff, who is said to have fallen a broken-hearted victim to the distraction of his imperial master, he raised a colossal statue of bronze; and on the days when he reviewed his troops in the square where the statue had been erected, he used to command them to march by in open order, and face the statue. Notwithstanding the important service that had been rendered him by Zuboff, the emperor soon became disgusted with him; spoke of him to his friends with great asperity; at length denounced him as a defaulter to the imperial treasury of half a million of rubles; and convinced of the justice of the allegation, proceeded to sequestrate the vast estates which belonged to him and his two brothers. Driven to desperation by such conduct, the second brother of the favourite one day walked up boldly to the emperor upon the parade, and with manly eloquence represented the injustice of his measures. Paul received him without anger, heard him without interruption, and restored the property; but soon after he ordered Plato Zuboff to reside on his estate. He formed an adulterous connexion with Madame Chevalier, a French actress, through whose influence Zuboff was again recalled to court, and restored to favour.

171 Conspiracy formed against the emperor.

It is not surprising that these instances of folly and caprice should alarm and disgust many of the nobles. In particular, Count P——, the governor of St Petersburgh, a son of the celebrated general P—— P——, who so eminently distinguished himself in the last Turkish war, Prince Y——, with some other men of rank, entered into a confederacy with Zuboff, to prevent the final ruin of their country, by removing the present emperor. In their conferences, which were managed with great prudence and discretion, it was resolved that Paul should die, and the day of the festival called Maslaintza, the eleventh of March O. S. should be the day for executing the awful deed. At the time of this confederacy, the emperor and his family resided in the new palace of St Michael, an enormous quadrangular pile standing at the bottom of the summer gardens. As Paul was anxious to inhabit this palace as soon after he was crowned as possible, the masons, carpenters, and various artificers, toiled with incredible labour by day and by torch light, under the sultry sun of the summer, and in all the severity of a polar winter, and in three years this enormous and magnificent fabric was completed. The whole is moated round, and when the stranger surveys its bastions of granite, and numerous draw bridges, he is naturally led to conclude, that it was intended for the last asylum of a prince at war with his subjects. Those who have seen its massy walls, and the capaciousness and variety of its chambers, will easily admit that an act of violence might be committed in one room, and not be heard by those who occupy the adjoining one; and that a massacre might be perpetrated at one end, and not known at the other. Paul took possession of this palace as a place of strength, and beheld it with rapture, because his imperial mother had never even seen it. While his family were here, by every act of tenderness, endeavouring to sooth the terrible perturbation of his mind, there were not wanting those who exerted every stratagem to inflame and increase it. These people were constantly insinuating that every hand was armed against him. With this impression, which added fuel to his burning brain, he ordered a secret staircase to be constructed,

(H) This paragraph is such a curious *morceau* of witty insanity, that we shall here give the original French, as written by Paul himself, and published by Kotzebue, in his account of his exile into Siberia. "On apprend de Petersbourg, que l'Empereur de Russie, voyant que les puissances de l'Europe ne pouvoient s'accorder entr' elles, et voulant mettre fin a une guerre qui la desoloit depuis onze ans, vouloit proposer un lieu ou il inviteroit tous les autres Souverains de se rendre et y combattre en champ clos, ayant avec eux pour écuyer juge de camp et heros des armes leurs ministres les plus éclairés et les generaux les plus habiles, tels, que M. M. Thugot, Pitt, Bernstorff; lui meme se proposant de prendre avec lui les generaux C. de Pahlen et Khutosof. On ne sçait si on doit y ajouter foix; toute fois la chose ne paroit pas destituée de fondement, en portant l'empreinte de ce dont il a souvent été taxé."

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172 His assassination.

structed, which, leading from his own chamber, passed under a false stove in the anti-room, and led by a small door to the terrace.

It was the custom of the emperor to sleep in an apartment next to the empress's, upon a sopha, in his regimentals and boots, whilst the grand duke and duchess, and the rest of the imperial family, were lodged at various distances, in apartments below the story which he occupied. On the 10th March, 1801, the day preceding the fatal night, whether Paul's apprehension, or anonymous information, suggested the idea, is not known, but conceiving that a storm was ready to burst upon him, he sent to Count P———, the governor of the city, one of the noblemen who had resolved on his destruction: I am informed, P———, said the emperor, that there is a conspiracy on foot against me, do you think it necessary to take any precaution? The count, without betraying the least emotion, replied, Sire, do not suffer such apprehensions to haunt your mind; if there were any combinations forming against your majesty's person, I am sure I should be acquainted with it. Then I am satisfied, said the emperor, and the governor withdrew. Before Paul retired to rest, he, beyond his usual custom, expressed the most tender solicitude for the empress and his children, kissed them with all the warmth of farewell fondness, and remained with them for a considerable time. He afterwards visited the centinels at their different posts, and then retired to his chamber. Soon after the emperor had retired, the guard that was always placed at his chamber door was, by some pretext, changed by the officers who had the command for the night, and who were engaged in the conspiracy. One man only remained. This was a hussar whom the emperor had honoured with particular marks of attention, and who always slept at night in the antichamber, at his sovereign's bed room door. This faithful soldier it was found impossible to remove, except by force, which at that time the conspirators did not think proper to employ. Silence now reigned throughout the palace, disturbed only by the pacing of the centinels, or by the distant murmurs of the Neva; and only a few straggling lights were to be seen, irregularly gleaming through the windows of the palace. In the dead of the night, Z———, and his friends, amounting to eight or nine persons, passed the drawbridge, ascended the staircase that led to the emperor's apartments, and met with no opposition till they reached the antichamber, where the faithful hussar, awakened by the noise, challenged them, and presented his fusee. Though they must have admired the brave fidelity of the guard, neither time nor circumstances would admit of an act of generosity, which might have endangered their whole plan of operations. Z——— drew his sabre, and cut the poor fellow down. In the mean time Paul, roused by the unusual bustle, sprang from his couch. At this moment the whole party rushed into his chamber. The unhappy sovereign anticipating their design, at first endeavoured to entrench himself behind the chairs and tables; but soon recovering some share of his natural courage, he assumed a high tone, told them they were his prisoners, and required them to surrender. Finding that they fixed their eyes steadily and fiercely upon him, and continued to advance, he implored them to spare his life, declared his willingness instantly to relinquish the sceptre, and to accept of any terms which they might dictate. He even offered to make them princes, and to confer on them orders and estates. Regardless alike of his threats and promises, they now began to press on him, when he made a convulsive effort to reach the window, but failed in the attempt; and, indeed, had he succeeded in his endeavour to escape that way, the height from the window to the ground was so great, that the expedient would probably have only put a more speedy period to his existence. As the conspirators drew him back, he grasped a chair, with which he knocked down one of the assailants, and a desperate conflict now took place. So great was the noise, that notwithstanding the massy walls, and double folding doors that divided Paul's apartments from those of the empress, she was disturbed, and began to call for help, when a voice whispered in her ear, commanding her to remain quiet, and threatening that if she uttered another word, she should instantly be put to death.

Paul was now making his last struggle, when the prince Y——— struck him on the temple with his fist, and laid him prostrate on the floor. Recovering from the blow, the unhappy monarch again implored his life. At this moment the heart of one of the conspirators relented, and he was observed to hesitate and tremble, when a young Hanoverian, who was one of the party, exclaimed, We have passed the Rubicon; if we spare his life, we shall, before the setting of to-morrow's sun, become his victims; on saying which he took off his sash, turned it twice round the naked neck of the emperor, and giving one end to Z———, himself drew the other, till the object of their attack expired *.

The assassins retired from the palace without the least molestation, and returned to their respective homes. As soon as the dreadful catastrophe was discovered, medical assistance was called in, in the hope of restoring what might be only suspended animation; but these attempts proved fruitless. At seven o'clock on the morning of the 12th, the intelligence of the death of Paul, and the accession of the grand duke Alexander were announced to the capital. By eight o'clock the principal nobility had paid their homage to the new emperor, in the chapel of the winter palace; and the great officers of state being assembled, Alexander was solemnly proclaimed emperor of all the Russias. The emperor presented himself at the parade on horseback, and was hailed by the troops with loud and cordial acclamations

173 Accession of Alexander Paulovitch.

The emperor Alexander was in his 24th year when he ascended the throne, and from his amiable disposition had acquired the love and respect of all his subjects. The first measure which he adopted, his proclamation, and his first imperial orders, all tended to encourage and confirm the confidence with which the people beheld him ascend the throne of his forefathers. He solemnly promised to tread in the steps of Catharine II.: he allowed every one to dress according to their own fancy; exonerated the inhabitants of the capital from the trouble and duty of alighting from their carriages on the approach of the imperial family; dismissed the court advocate, who was universally and justly detested; suppressed the secret inquisition that had become the scourge of the country; restored to the senate its former authority; set at liberty the state prisoners, and recalled from Siberia several of the exiles. He even extended his mercy to the assassins of the late emperor. Zuboff was ordered not to approach the imperial residence,

* See *Carr's Northern Summer.*

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dence, and the governor of the city was transferred to Riga.

It is not easy to explain the motives that induced Alexander to forego that vengeance which justice seemed to demand on the heads of his father's assassins. It has been attributed by one of his panegyrists to a forlorn and melancholy conviction that the murderers had been prompted to commit the bloody deed, solely by a regard for the salvation of the empire. This conviction might have induced the young monarch to diminish the weight of that punishment which piety and justice called on him to inflict, but can scarcely account for his total forbearance.

174 Amicable disposition of Alexander towards Britain.

The emperor Alexander, on his accession to the throne, appeared desirous to cultivate the friendship of the neighbouring states, and especially that of Great Britain. His late father, among other projects, had procured himself to be elected grand master of the knights of Malta, and had laid claim to the sovereignty of that island. This claim, which had nearly produced a rupture between the courts of London and St Petersburgh, Alexander consented to abandon, though he expressed a wish to be elected grand master of the order, by the free suffrages of the knights. In the mean time a confederacy had been formed among the northern powers of Europe, with a view to oppose the British claim to the sovereignty of the seas; but by the spirited interference of the British court, especially with the cabinet of St Petersburgh, the good understanding between Britain and the northern states was re-established, and the embargo which had been laid on British vessels in the Russian ports was taken off.

On the 19th of June, Alexander caused to be published the following circular letter, showing his disposition to be on terms of amity with the French republic. "All the relations of policy, commerce, and correspondence with France, which were interrupted, in consequence of the revolution in that country, have not yet been re-established in their full extent; but as at the present moment negociations are going on to effect a reconciliation with that power by every means consistent with the dignity of the emperor and the interests of his people, his majesty has been pleased to charge his ministers to apprize his foreign ambassadors and agents, that he is willing to renew the usual course of connection with the government, and that the conferences respecting that object are in full activity. In the situation in which this matter stands, therefore, it is no longer proper that the ambassadors of his imperial majesty should continue to observe any distance towards the ambassadors of the French government."

175 Treaty of amity and commerce with Sweden.

Early in the same month there was signed at St Petersburgh, a treaty of amity, commerce, and navigation, between Russia and Sweden, to continue for 12 years, by which Sweden was allowed to import into Russia, alum, salt herrings, and salt, on the payment of one-half of the duties then exacted, and into Russian Finland the produce of Swedish Finland, duty free; while the importation of Russia into Sweden, of hemp, linen, and tallow, was allowed at one half of the existing duties, and of linseed at two-thirds. The most remarkable part of this treaty was the recognition, by the court of St Petersburgh, of the northern confederacy, which the amicable adjustment with Britain appeared to have done away.

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176 Prosperous state of Russian commerce. An. 1802.

The commerce of Russia had now recovered its former splendour. The exports from the city of Riga alone for the year ending July 1801, amounted to 6,770,638 rubles, and of these exports, England alone imported to the value of 2,509,853 rubles.

177 Russia guarantees the sovereignty of Malta to the knights of St John of Jerusalem.

On the 25th of March 1802 was signed at Amiens the definitive treaty of peace between the belligerent powers of Europe, by one material article of which the islands of Malta, Gozo and Comimo, were to be restored to the knights of St John of Jerusalem, under the protection and guarantee of France, Great Britain, Austria, Spain, Russia, and Prussia; and his Sicilian majesty was invited to furnish 2000 men, natives of his states, to serve in garrisons at the different fortresses of the said islands, for one year after their restitution to the knights, or until they should be replaced by a force deemed sufficient by the guaranteeing powers. Some time after the conclusion of this treaty, disputes arose among the contracting powers relative to the sovereignty of Malta, which the emperor of Russia insisted should be yielded to Naples, otherwise he would not undertake to guarantee the order, and would separate from it the priories of Russia. The result of these disputes is well known, as they afforded a reason for renewing the bloody contest which has so long desolated the face of Europe.

178 Prudent regulations of the emperor Alexander.

During the short interval of peace that was enjoyed by Europe, the emperor of Russia made several prudent regulations in the internal administration of his empire. On the 12th of September 1801, a manifesto had been published, proclaiming the union of Georgia or Russian Grufinia with the empire, and on the 1st April 1802, Alexander sent a deputation to establish the new government at Teflis, the capital of the province. This deputation was received by the natives with enthusiastic joy, especially as they brought back the image of St Nina, which their prince Wachtang at his death had left at Mosco. On the 28th May, the emperor wrote a letter to the chamberlain Wittostoff, president of the commission for ameliorating the condition of the poor of St Petersburgh, in which he recommended the commission to follow the example of a similar establishment at Hamburgh, in selecting proper objects for their charitable bequests, preferring the humble and industrious pauper to the idle and sturdy beggar. He also offered considerable premiums to persons who should introduce any new or advantageous mode of agriculture, or who should bring to perfection any old invention, open any new branch of commerce, establish any new manufacture, or contrive any machine or process that might be useful in the arts.

An. 1803.

179 A voyage of discovery set on foot.

Early in the year 1803, the emperor fitted out at his own expence, two vessels for a voyage of discovery round the world, under the command of Captain Krucenstern. These ships were provided with every necessary for accomplishing the object of the voyage; and several men of eminence for science and literature, among whom was Churchman the American astronomer, volunteered their services on this occasion. The vessels sailed in the latter end of 1803, and about a year after, intelligence was received from M. Krucenstern, who was then lying at Kamtschatka. They had touched at the Marquesas islands, where they had found a Frenchman and an Englishman, who had been left there several years before. The Englishman had completely forgotten his native

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native language, and the Frenchman, who had for seven years spoken nothing but the language of the natives, scarcely retained sufficient French to inform M. Krucenstern that he had made part of the crew of an American vessel which was wrecked on those coasts. The expedition was then preparing to sail for Japan, to carry thither M. de Rasannoff, who had been appointed ambassador extraordinary from the court of Russia to that of Japan.

An. 1804. 180 Establishment of an university in Lithuania.

In the beginning of 1804, the emperor established a university at Kharkof in Lithuania, for the cultivation and diffusion of the arts and sciences in that part of the Russian empire, and Mr Fletcher Campbell, a Scots gentleman, was employed to procure masters for this new institution. Some time after, the emperor ordered that meteorological observations should be regularly made at all the universities and public schools, and the results published. It appears that at the end of this year the sums allotted by the Russian government, for defraying the expences of these institutions amounted to 2,149,213 rubles, besides a gift of nearly 60,000 rubles towards erecting the new university.

181 Emancipation of the Jews in Russia.

About this time an imperial ukase was published, granting to the Jews a complete emancipation from the shackles under which that devoted people had long groaned, and allowing them the privileges of educating their children in any of the schools and universities of the empire, or establishing schools at their own expence.

182 Dispute with France.

For some time the genius of discord, which had again actuated the minds of the European sovereigns, failed to extend her baleful influence over the Russian empire; but it was scarcely possible that the emperor should long remain an impartial spectator of the renewed disputes between his more powerful neighbours. An important change had, in the latter end of 1802, taken place in the ministry of the empire; and Count Woronzoff, brother to the late ambassador at London, had been appointed great chancellor in chief of the department of foreign affairs, with Prince Adam Tzartoriski for his assistant. How far this change in the councils of the empire influenced the political measures of the court of St Petersburgh, it is not easy to determine; but in the latter end of 1803, Alexander appeared to view with a jealous eye the presumption and violence exercised by France among the German states, and the encroachments which she appeared desirous of making on the freedom of the Baltic. Alexander had offered his mediation between Great Britain and France, but without effect, and both these parties strove to bring over the Russian emperor to their alliance. France seems to have held out to the ambition of Alexander the bait of a partition of the Turkish territories, the dismemberment of which had long been a favourite object with his predecessors. At length, however, the court of London prevailed, and the Russian ambassador, by his master's orders, took leave of the First Consul of the French republic, though without demonstrating any intentions of immediate hostility. A new levy of 100,000 men was immediately ordered, to recruit the Russian army, and to prevent any jealousy on the side of Turkey, assurances were given to the Sublime Porte of the amicable intentions of Russia towards that power.

On the 11th April a treaty of concert was concluded between Great Britain and Russia, in which the two governments agreed to adopt the most efficacious means for forming a general league of the states of Europe, to be directed against the power of France. The objects of this league were undoubtedly of great importance to the welfare of Europe; and it is deeply to be regretted that the circumstances of the times did not admit of their being carried into execution. From the terms of the treaty, these objects appear to be,—First, The evacuation of the country of Hanover and the north of Germany. Secondly, The establishment of the independence of the republics of Holland and Switzerland. Thirdly, The re-establishment of the king of Sardinia in Piedmont, with as large an augmentation of territory as circumstances would allow. Fourthly, The future security of the kingdom of Naples, and the complete evacuation of Italy, the island of Elba included, by the French forces. Fifthly, The establishment of an order of things in Europe, which might effectually guarantee the security and independence of the different states, and present a solid barrier against future usurpation.

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An. 1805. 183 Treaty of concert between Great Britain and Russia.

For the prosecution of the great objects of this treaty, it was proposed by the first article that an army of 500,000 men should be levied; but in a subsequent separate article, the contracting parties, after observing that it was more desirable than easy to assemble so large a force, agreed that the treaty should be carried into execution as soon as it should be possible to oppose to France an active force of 400,000 men. It was understood and stipulated that these troops should be provided by the powers of the continent who should become parties to the league, and subsidies should be granted by Great Britain in the proportion of 1,250,000l. sterling for every 100,000 men, besides a considerable additional sum for the necessary expence occasioned in bringing them into the field.

184 Open rupture with France.

About this time the occupation of Genoa by the French, on the pretence that that republic was too feeble to support itself against the attacks of Great Britain, was communicated to the different courts of Europe, and excited in every quarter the highest indignation. The emperor Alexander, in particular, was incensed at this new outrage. Such an open violation of those principles which were justly regarded as essential to the general safety, committed not only during the peace of the continent, but when passports had been delivered to his ambassador, in order that a negociation might be commenced for the purpose of providing for the permanent security and repose of Europe, he considered as an indecent insult to his person and crown. He issued immediate orders for the recal of M. Novosiltzoff; and the messenger dispatched upon this occasion was commanded to repair with the utmost diligence to Berlin. M. Novosiltzoff had not yet left that city; he immediately therefore returned his passports to the Prussian minister of state, Baron de Hardenberg, and at the same time delivered, by order of his court, a memorial explanatory of the object of his mission, and of the circumstances which had led to its termination.

It stated that the emperor had, in compliance with the wishes of his Britannic majesty, sent his ambassador to Bonaparte, to meet the pacific overtures which he had made to the court of London: that the existing disagreement between Russia and France might have placed insurmountable obstacles in the way of a negociation for peace by a Russian minister; but that his imperial majesty

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majesty of Russia did not for a moment hesitate to pass over all personal displeasure, and all the usual formalities; that he had declared he would receive the passports only on condition that his minister should enter directly upon a negotiation with the chief of the French government, without acknowledging the new title which he had assumed: and that Bonaparte should give explicit assurances that he was still animated by the same wish for a general peace, which he had appeared to shew in his letter to his Britannic majesty; that after his Prussian majesty had transmitted the positive answer of the court of the Thuilleries, that it persevered in the intention sincerely to lend its hand to a pacific négotiation, the emperor had accepted the passports; but that by a fresh transgression of the most solemn treaties, the union of the Ligurian republic with France had been effected; that this event of itself, the circumstances which had accompanied it, the formalities which had been employed to hasten the execution of it, the moment which had been chosen to carry the same into execution, had formed an aggregate which must terminate the sacrifices which the emperor would have made at the pressing request of Great Britain, and in the hope of restoring tranquillity to Europe by the means of negotiation.

The recal of the Russian envoy appeared to be the signal of hostilities on the part of Russia and Austria against France. These hostilities may be said to have commenced and terminated in the autumn of this year. The military operations that distinguished this short but bloody conflict, the rapid successes of the French, the capitulation of Ulm on the 17th of October, the occupation of Vienna by the French on the 12th of the same month, and the sanguinary battle of Austerlitz on the 27th of November, have been already noticed under FRANCE, N° 552—555, and are fresh in the memory of our readers. The consequences of these disastrous events were, first a cessation of hostilities, and at length a treaty of firm alliance between Russia and France.

An. 1806.

Before Alexander finally stooped to the imperial eagles of Napolean, however, he was determined to make one more effort to preserve his independence. The Russian envoy at Paris, d'Oubril, had hastily concluded a preliminary treaty of peace between his master and the emperor of the French, which he signed at Paris on the 8th of July 1806, and instantly set out for St Petersburgh to procure the ratification of his master. The terms of this convention were laid before the privy council by Alexander; but they appeared so derogatory to the interests of Russia, that the emperor refused them his sanction, and declared that the counsellor of state, d'Oubril, when he signed the convention, had not only departed from the instructions he had received, but had acted directly contrary to the sense and intention of the commission with which he had been entrusted. His imperial majesty, however, signified his willingness to renew the negotiations for peace, but only on such terms as were consistent with the dignity of his crown, and the interests of his empire.

185 Alliance with Prussia against France.

In the mean time, the king of Prussia began, when it was too late, to see the folly and imprudence of the neutrality which he had so long maintained, and he at length prepared to oppose his now feeble efforts to the growing power of France. He brought together in the summer of this year, an army of at least 200,000 men, near Weimar and Jena, while the French myriads assembled in Franconia, and on the frontiers of Saxony. Previous to the commencement of hostilities, his Prussian majesty issued a spirited manifesto, in which he explained his motives for abandoning his plan of neutrality, and appealed to Europe for the justice of his cause. The king of Prussia entered into an alliance with the emperor Alexander, and with the king of Sweden, and it was expected, that these united forces would at length hurl the tyrant of Europe from his throne, or at least compel him to listen to equitable terms of pacification. These expectations were, however, miserably disappointed. The same extraordinary success was still to attend the arms of France, and the north of Europe was again condemned to submit in silence to her yoke.

On the 13th October, the Prussians received a dreadful check at the battle of Jena, where, according to the French accounts, their loss amounted to 20,000 in killed and wounded, and above 30,000 prisoners; and on the 27th of the same month, Napolean entered Berlin. While the French were thus successful, the troops of the emperor Alexander entered Prussian Poland, and took up their residence at Warsaw; but they were soon attacked by the French under the grand duke of Berg *. On the 26th of November, the outposts of the respective armies fell in with each other, and a skirmish took place, in which the Russians were thrown into some confusion and a regiment of Kozaks was made prisoners. On the 28th the grand duke of Berg entered Warsaw with his cavalry, and the Russians retreated across the Vistula, burning the bridge over which they had passed. On the 26th of December, a dreadful engagement took place between the Russians, commanded by General Benningsen, and the French under generals Murat, Davoust, and Lasnes. The scene of action was at Ostralenka, about 60 miles from Warsaw, and the fighting continued for three days. The loss was immense on both sides, though the advantage appears to have been on the side of the French. According to French accounts, the Russian army lost 12,000 men in killed and wounded, together with 80 pieces of cannon, and all its ammunition waggons, while the Russian account states the loss of the French at 5000 men.

* Murat.

An. 1807. 186 Battle of Eylau.

In the beginning of February 1807, the Russians obtained a partial advantage in the battle of Eylau. According to the account of this battle, given by General de Budberg, in a dispatch to the marquis of Douglas, the British ambassador at St Petersburgh, the Russian general Benningsen, after having fallen back, for the purpose of choosing a position which he judged well adapted for manœuvring the troops under his command, drew up his army at Preussisch Eylau. During four days successively his rear guard had to withstand several vigorous attacks; and on the 7th of February at three o'clock in the afternoon, the battle became general through the whole line of the main army. The contest was destructive, and night came on before it could be decided. Early on the following morning, the French renewed the attack, and the action was contested with obstinacy on both sides, but towards the evening of that day the assailants were repulsed, and the Russian general remained master of the field. In this action, Napolean commanded in person, having under him Augereau,

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gereau, Davoust, Soult, Ney, and Bessieres, at the head of the imperial guards. The loss of the Russians in that engagement, was by themselves stated at above 6000 men, while they estimated that of the French at nearly double that number.

187 Battle of Friedland.

This was the last important stand made by the Russian army. Several actions succeeded at Spanden, at Lamitten, at Guttotadt, and at Heilsberg, in all of which the French had the advantage, till at length on the 14th of June, the Russians appeared in considerable force on the bridge of Friedland, whither the French army under Napoleon was advancing. At three in the morning, the report of cannon was first heard, and at this time Marshals Lasnes and Mortier were engaged with the Russians. After various manœuvres, the Russian troops received a check, and filed off towards Konningsberg. In the afternoon, the French army drew up in order of battle, having Marshal Ney on the right, Lasnes in the centre, and Mortier on the left, while Victor commanded a corps de reserve, consisting of the guards. At half past five the attack began on the side of Marshal Ney; and notwithstanding the different movements of the Russians to effect a diversion, the French soon carried all before them. The loss of the Russians, according to the usual exaggerations of the French bulletins, was estimated at from 10,000 to 15,000 men, and 25 of their generals were said to have been killed, wounded, or taken. In consequence of this victory, the French became masters of all the country round Konningbsberg, and Marshal Soult entered that city in triumph.

Thus concluded the campaign in Germany, in which the Russians sustained a loss of at least 30,000 of their choicest troops.

188 War declared against Russia by Turkey.

While these military operations were going forward on the continent of Europe, the emissaries of France were busily employed at Constantinople, in exciting the divan to declare against their ancient enemies. They at length succeeded; and on the 30th of December war with Russia was proclaimed, and 28 regiments of janissaries assembled under the command of the grand vizir; but the disturbances which broke out in the latter end of May 1807, prevented any operations of importance from taking place, and the pacification which was soon concluded between Russia and France, though it did not entirely put a stop to the war between the former power and Turkey, in some measure diminished their hostile preparations.

189 Treaty of Tilsit.

The defeats which the allied armies had sustained in Prussia and Poland, rendered peace, almost on any terms, a desireable object; and Alexander found himself constrained to meet, at least with the appearance of friendship, the conqueror of his armies. Propositions for an armistice had been made by the Prussian general to the grand duke of Berg near Tilsit, and after the battle of Friedland, the Russian prince Labanoff had a conference, on similar views, with the prince of Neufchatel, soon after which an armistice was concluded between the French and Russians. On the 25th of June an amicable meeting took place on the river Niemen between the emperors of France and Russia, and adjoining apartments were fitted up for the reception of both courts in the town of Tilsit. This constrained friendship was soon after cemented by the treaty of Tilsit, concluded between the emperor of the French on the one part, and the emperor of Russia and the king of Prussia on the other, on the 7th and 12th of July in this year.

190 Rupture with Britain.

The conclusion of the treaty of Tilsit was notified to the court of London on the 1st of August by M. Alopeus, minister plenipotentiary from the emperor of Russia; and at the same time a proposal was made from his imperial majesty for mediating a peace between France and Britain. This mediation, however, was declined on the part of Great Britain, until his Britannic majesty should be made acquainted with the stipulations of the treaty of Tilsit, and should find them such as might afford him a just hope of the attainment of a secure and honourable peace. This declining of the mediation of Russia was no doubt expected by the court of St Petersburgh; but it served as a pretext for binding more closely the alliance between that power and France, by breaking off her connection with Great Britain. Accordingly, in October, Lord Granville Leveson Gower, who had succeeded the marquis of Douglas as British envoy, received a note from the government, intimating that, as a British ambassador, he could be no longer received at the court of St Petersburgh, which he therefore soon after quitted. An embargo was laid on all British vessels in the ports of Russia, and it was peremptorily required by Napoleon, and Alexander, that Sweden should abandon her alliance with Great Britain.

An additional ground of complaint against the British court was furnished by the attack on Copenhagen, and the seizure of the Danish fleet in the beginning of September; and though Lord Gower had attempted to justify these measures on the plea of anticipating the French in the same transaction, the emperor of Russia expressed, in the warmest terms, his indignation at what he called an unjust attack on a neutral power. A considerable Russian fleet joined the French, but the combined squadrons were compelled to seek for shelter in the Tagus, where they remained blocked up by the British; and another fleet of 15 sail of the line that proceeded up the Mediterranean, and advanced as far as Trieste, shared a similar fate (1.)

On the 26th of October the emperor of Russia published a declaration, notifying to the powers of Europe that he had broken off all communication between his empire and Great Britain, until the conclusion of a peace between this power and France. In a counter-declaration, published at London on the 10th of December, his Britannic majesty repels the accusations of Russia, while he regrets the interruption of the friendly intercourse between that power and Britain. His majesty justifies his own conduct, and declares, that when the opportunity for peace between Great Britain and Russia shall

(1) By the unfortunate convention of Cintra, concluded on the 3d of September 1808, the Russian fleet in the Tagus was surrendered to the British, to be held as a deposit, till six months after the signing of a definitive treaty of peace.

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shall arrive, he will embrace it with eagerness; satisfied, if Russia shall manifest a disposition to return to her ancient feeling of friendship towards Great Britain, to a just consideration of her own true interests, and to a sense of her own dignity as an independent nation.

An. 1808. 191 Renewed negociations with Britain.

In October 1808, a meeting took place at Erfurth between the emperors of France and Russia, and a letter was drawn up under their signature, addressed to his Britannic majesty. The object of this letter was, to induce the king of Great Britain to enter into negociations for a general peace, and with that view it was dispatched by Count Romanzoff, the Russian minister at Erfurth, to Mr Canning the British secretary of state for foreign affairs. As this letter, and the official note of the British government in answer to it, supply two very important documents in the latter history of the present war, we shall here introduce them. The letter of the two emperors is as follows.

"Sire.—The present circumstances of Europe have brought us together at Erfurth. Our first thought is to yield to the wish and the wants of every people, and to seek, in a speedy pacification with your majesty, the most efficacious remedy for the miseries which oppress all nations. We make known to your majesty our sincere desire in this respect by the present letter.

"The long and bloody war which has torn the continent is abandoned, without the possibility of being renewed. Many changes have taken place in Europe; many states have been overthrown. The cause is to be found in the state of agitation and misery in which the stagnation of maritime commerce has placed the greatest nations. Still greater changes may yet take place, and all of them contrary to the policy of the English nation. Peace, then, is at once the interest of the continent, and that of the people of Great Britain.

"We unite in entreating your majesty to listen to the voice of humanity, silencing that of the passions; to seek, with the intention of arriving at that object, to conciliate all interests, and by that means to preserve all the powers which exist, and to ensure the happiness of Europe and of this generation, at the head of which Providence has placed us."

(Signed) ALEXANDER.———NAPOLEON.

In answer to this letter the following official note, signed by Mr Secretary Canning, was dispatched to Erfurth; and as the imperial correspondents refused to accede to the requisitions it contained, all hopes of present accommodation were at an end.

"The king has uniformly declared his readiness and desire to enter into negociations for a general peace, on terms consistent with the honour of his majesty's crown, with fidelity to his engagements, and with the permanent repose and security of Europe. His majesty repeats that declaration.

"If the condition of the continent be one of agitation and of wretchedness; if many states have been overthrown, and more are still menaced with subversion; it is a consolation to the king to reflect that no part of the convulsions which have been already experienced, or of those which are threatened for the future, can be in any degree imputable to his majesty. The king is most willing to acknowledge that all such dreadful changes are indeed contrary to the policy of Great Britain.

"If the cause of so much misery is to be found in the stagnation of commercial intercourse, although his majesty cannot be expected to hear, with unqualified regret, that the system devised for the destruction of the commerce of his subjects has recoiled upon its authors, or its instruments, yet it is neither in the disposition of his majesty, nor in the character of the people over whom he reigns, to rejoice in the privations and unhappiness even of the nations which are combined against him. His majesty anxiously desires the termination of the sufferings of the continent.

"The war in which his majesty is engaged, was entered into by his majesty for the immediate object of national safety. It has been prolonged only because no secure and honourable means of terminating it have hitherto been afforded by his enemies.

"But in the progress of a war, begun for self-defence, new obligations have been imposed upon his majesty, in behalf of powers whom the aggressions of a common enemy have compelled to make common cause with his majesty, or who have solicited his majesty's assistance and support in the vindication of their national independence.

"The interests of the crown of Portugal and of his Sicilian majesty are confided to his majesty's friendship and protection.

"With the king of Sweden his majesty is connected by the ties of the closest alliance, and by stipulations which unite their counsels for peace as well as for war.

"To Spain his majesty is not yet bound by any formal instrument; but his majesty has, in the face of the world, contracted with that nation engagements not less sacred, and not less binding, upon his majesty's mind, than the most solemn treaties.

"His majesty, therefore, assumes that, in an overture made to his majesty for entering into negociations for a general peace, the relations subsisting between his majesty and the Spanish monarchy have been distinctly taken into consideration; and that the government acting in the name of his Catholic majesty, Ferdinand VII. is understood to be a party to any negociation in which his majesty is invited to engage."

192 War with Sweden.

The demand of concurrence in the views of France and Russia made on Sweden was formally repeated in a declaration of the emperor Alexander, published at St Petersburgh on the 10th February in this year. In this declaration his imperial majesty intimated to the king of Sweden, that he was making preparations to invade his territories; but that he was ready to change the measures he was about to take, to measures of precaution only, if Sweden would, without delay, join Russia and Denmark in shutting the Baltic against Great Britain, until the conclusion of a maritime peace. He professed that nothing could be more painful to him, than to see a rupture take place between Sweden and Russia; but that his Swedish majesty had it still in his power to avoid this event, by resolving without delay, to adopt that course which could alone preserve strict union and perfect harmony between the two states.

The king of Sweden, however, determined to abide by the measures which he had for some time pursued, and to accede to the terms of the convention which had just been concluded between him and the king of Great Britain. In consequence of this determination, a Russian

sian army entered Finland in the beginning of March, under the command of general Buxhovden, and advanced against Helsingfors, which was occupied by a single battalion of a Swedish regiment. This small force retired into the fortress of Sweaborg, where they maintained themselves with great bravery till the 17th of April, when they were obliged to capitulate. The loss of this fortress, though inconsiderable in itself, so highly enraged the king of Sweden, that he dismissed the naval and military commanders who had been concerned in the capitulation.

On the 27th of April, some slight advantage was gained over the Russians near Rivolax, by the Swedish army under General Count Klinspor; but this was only a partial gleam of success. The Russians soon overran almost all Finland, took possession of Wasa, old and new Carleby, and reduced under subjection the whole province of which Wasa is the capital. The army of Field-marshal Klinspor, which originally consisted of 16,000 regulars, and many boors, was, by the end of the campaign, reduced to little more than 9000 men. The Russian troops were said to have committed great excesses, in consequence of which the king of Sweden addressed the following letter to the emperor of Russia.

"Honour and humanity enjoin me to make the most forcible remonstrances to your imperial majesty against the numberless cruelties and the injustice committed by the Russian troops in Swedish Finland. These proceedings are too well known and confirmed, to require from me any proof of their reality; for the blood of the ill-fated victims still cries aloud for vengeance against the abettors of such enormities. Let not your imperial majesty's heart be insensible to the representations which I find myself compelled to make to you, in the name of my faithful subjects in Finland. But what is the object of this war, as unjust as it is unnatural? It is not, I suppose, to excite the strongest aversion for the Russian name? Is it criminal in my subjects in Finland not to have suffered themselves to be seduced from their allegiance by promises as false as the principles on which they are founded? Does it become a sovereign to make loyalty a crime? I conjure your imperial majesty to put a stop to the calamities and horrors of a war which cannot fail to bring down on your own person and government the curses of divine Providence. Half of my dominions in Finland are already delivered by my brave Finnish troops; your majesty's fleet is shut up in Baltic port, without the hope of ever getting out, any otherwise than as a conquest; your flotilla of galleys has recently sustained a very severe defeat; and my troops are at this moment landing in Finland, to reinforce those who will point out to them the road to honour and to glory.

"Head-quarters, Sept. 7. 1808.

(Signed) "GUSTAVUS ADOLPHUS."

The king of Sweden sent some reinforcements to his army in Finland; but the forces which should have supported Klinspor, were foolishly employed in a fruitless attempt to conquer Norway; and in 1809 the Swedes were compelled to cede Finland to Russia. This province, including Lapmark, occupies an extent of about 120,000 square English miles, and was estimated to contain 895,000 inhabitants.

Russia continued to appear in the unworthy character of Napoleon's ally; and when Austria made an effort in 1809 to recover her losses, a Russian army advanced to cooperate with the French. The diversion which this produced was one cause of the final success of Napoleon, whose situation after the battle of Aspern was extremely critical. When Austria was at last compelled to accept of peace on humiliating terms, Russia received as the reward of her services the district of Tarnopol in Galicia, with a population of 400,000 souls. This district was restored to Austria in 1814.

In 1811 hostilities commenced between Russia and the Porte. It is of little consequence to inquire into the causes of this rupture: a powerful and ambitious government in the neighbourhood of a weak one, never wants pretexts for war. The result might have been serious, if not fatal to the Porte, had not the prospect of a more arduous struggle induced Russia to suspend her efforts in that quarter, and conclude a peace on condition of receiving a part of Moldavia and Bessarabia.

The great contest was now approaching which was to try the resources of Russia, and ultimately to raise her to unexampled greatness. The seizure by France of the territories of the Prince of Oldenburg, who was the emperor of Russia's brother-in law, on the one hand; and the admission of British produce into the Russian harbours, on the other, furnished the ostensible grounds of the quarrel. After some fruitless negociations, Bonaparte dismissed the Russian ambassador, and left Paris to join the army, on the 9th of May 1812. This vast army, the largest ever assembled in modern times, was posted on the frontiers of Poland. Its numbers have been variously estimated; but, including the auxiliary corps of Austria and Prussia, and the garrison corps left behind to maintain its communications, it certainly did not fall short of half a million of men. In the end of June the advanced corps passed the Niemen without resistance. From this time till it arrived at Smolensk on the 15th August, the French army experienced an obstinate resistance, and sustained many heavy losses. On the 17th August a general engagement took place in front of Smolensk, which terminated in favour of the French, who took possession of the town after the Russians had destroyed the magazines, and burned all the buildings most likely to be serviceable. At Borodina the Russian general Kutusof collected all his corps into a mass, with the resolution of making a desperate effort to arrest the enemy in his advances to Moscow. The battle fought here on the 7th September, was one of the most bloody on record. It ended in the Russian position being forced, but not without the loss of forty or fifty thousand of the assailants, and about an equal number of Russians. On the 14th September, the French army arrived at Moscow; but what was their consternation when they discovered the city to be in flames in a hundred places! After a fruitless attempt to dictate a peace from this ancient capital, Bonaparte found himself compelled to evacuate the place on the 19th October, having previously destroyed the Kremlin. The retreat that followed was the most disastrous to be found in history. Those who were spared by the sword were destroyed by famine; and of the magnificent army that entered Russia, scarcely 50,000 reached

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reached Wilna on the 8th of December. The noble resistance of Russia now roused Prussia and Austria; and early in 1813, a league was formed between these powers, to which Bavaria and other small states acceded. The battle of Leipsic, fought on the 18th October, led to the final overthrow of the French domination. In all the transactions which followed, Russia bore a leading part. At the congress of Vienna in 1814, the dutchy of Warsaw, consisting of part of the original conquests of Austria and Prussia in Poland, was assigned to Russia, who has thus ultimately obtained about four-fifths of the territory, and three-fourths of the population of that ancient kingdom. The dutchy of Warsaw has since been erected into a kingdom, to which a representative constitution was given in 1818. Its population is about 2,793,000 upon a surface of 48,000 square English miles. When we add to this the territories which Russia has gained, by conquest or cession, in the Crimea, Georgia, Finland and Moldavia, the whole amount of her acquisitions, during the last forty years, cannot be estimated at less than nine millions of population, and 450,000 square miles of territory.

193 Extent of population in the Russian empire.

The population of Russia, according to Dr Hassel a German writer, (in his Account of the States of Europe, Weimar 1816), was 45,516,000 in 1815, of which 34,394,000 were in Europe, and 8,376,000 in Asia, the remaining number consisting of the population of the new kingdom of Poland. This population is very unequally distributed over the country; some of the governments in the central part of the empire being nearly as populous as northern Germany, while others have scarcely an inhabitant to a square league. The number of the people is increasing in such a ratio as to double itself in about seventy years. It consists of about 100 nations, who speak at least forty different languages. The Sclavonic race, however, predominates greatly: it is computed to amount to 38 millions, the Finns 2,376,000, the Tartars 1,850,000, the Caucasian nations 1,200,000, the Mongols 300,000, the Mandshurs 80,000, the Polar tribes, Samoeids, Tschutzes, &c. 300,000, Colonists including Moldavians, French, Germans, &c. 800,000.

In this population, it is computed that there are 34,000,000 belonging to the Greek church; 5,300,000 Catholics or Schismatic Greeks, in Poland, Lithuania, &c.; 2,500,000 Lutherans in Courland, Finland, and among the German colonists; 33,000 Reformed; 70,000 Armenians; 1,800,000 Mahometans; 210,000 Jews; and 300,000 Worshippers of the Dalai Lama.

194 Revenues.

The revenue of Russia, according to the writer above mentioned, was about 215 millions of rubles in 1815. If the paper ruble is meant, this would only be equal to 10 millions sterling; if the silver ruble, it would be equal to 36 millions Sterling. The former sum is evidently too small, and the latter too large. By another German writer (Crome), the revenue is estimated at 250 millions of florins, equal to 25 millions sterling. This revenue is derived from domains; monopolies of brandy, and other articles: a poll-tax of two rubles upon each peasant, and five upon each burgher; imposts on property, customs, &c.

The rapid increase of the population of the Russian empire, is proved by the proportion of deaths to births. Thus, in 1803, the number of marriages was 300,470; that of the births of the same year 1,270,341; and that of the deaths only 791,973: so that the number of births exceeded that of deaths by 478,368; and the population had of course, in that year, increased nearly half a million (L).

In the year 1804, the number of marriages was 311,798: of births 715,334 males, and 642,233 females, making 1,357,567; and of deaths 439,137 males, and 380,681 females, making a total of 819,818; so that in the course of that year, the number of births exceeded that of deaths by 537,749.

195 Government.

The government of Russia appears always to have been despotic; and we have no traces of any legislative power distinct from that of the sovereign, as what is called the senate is only the supreme court of judicature. Vasilii Schuiskoy, who obtained the crown in 1606 (see N° 80), pretended to obtain it in consequence of a free election by the senate and people; but we have seen that his coronation was produced by intrigues among the chiefs; and there appears in the Russian history no vestige of any national council, parliament, or estates of the empire, far less of a free elective diet, like that which distinguished the republic of Poland. The emperor is absolute lord, not only over all the estates of the empire, but also of the lives of his subjects. The greatest noblemen call themselves his slaves, and execute his commands with the most implicit obedience. The common people revere him as something supernatural; and never mention his name, or any thing immediately belonging to him, without marks of the most profound respect and awful veneration.

During the reign of Catharine II. the immediate administration of affairs was nominally vested in what was called her imperial majesty's council. This was composed of the principal officers and persons of the empire, namely, of general feldt-marshals, generals in chief, and actual privy-counsellors: at present they are 14 in number; the fifteenth fills the place of a chancery-director, and has a secretary under him. The vice-chancellor of the empire is a member of this council. The post of grand-chancellor is sometimes suffered to remain vacant.

The cabinet, to which belongs the care of the sovereign's private affairs or concerns, as likewise the reception of petitions, consists generally of ten persons, the high-steward of the household, privy-counsellors, major generals, and state-counsellors, with their several subordinate officers and chanceries. It also examines despatches, passes accounts, &c.; takes cognisance of the produce of silver mines, &c. Whoever is not satisfied with a decision of the senate, may appeal by petition to the cabinet; and in this respect it

(L) It is curious to remark how many people of a very advanced age died in Russia during this year. Thus, among the deaths are reckoned 1145 between 95 and 100: 158 between 100 and 105; 90 between 105 and 110; 54 between 110 and 115: 36 between 115 and 120; 15 between 120 and 125; 5 between 125 and 130; and 1 between 145 and 150.

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it does the office of a supreme tribunal, in which the sovereign in person decides.

In extraordinary cases, it sometimes happens that a special high court of justice is appointed, not subsordinate to the senate, but immediatly under the sovereign. The presidents are usually taken from the imperial colleges and other eminent stations, and likewise from among the members of the synod. Where the alleged offence is of an extremely heinous nature, the examination is first made by particular persons appointed for that purpose, and the protocol is laid before the commissioners for their judgments. †

† *Tooke's View*, vol. ii. p. 341.

196 Imperial titles.

In number of titles the emperor of Russia rivals the proudest monarchs of the east. In the reign of Catharine II. the imperial titles, when written at length, ran thus;—" By the grace of God, Catharine II. empress and autocratrix of all the Russias, of Mosco, Kief, Vladimir, Novgorod; tzarina of Casan, tzarina of Astrakhan, tzarina of Siberia, tzarina of the Tauridan Chersonese, lady of Pscove, and grand dutchess of Smolensk; princess of Esthonia, Livonia, Karelia, Tver, Yugoria, Permia, Viatka, Bulgaria, and other countries; lady and grand dutchess of Novgorod of the low country, of Tschernigof, Reazan, Polotsk, Rostoff, Yaroslavl, Bielosero, Udoria, Obdoria, Kondia, Vitepsk, Mstislavl; sovereign of the whole northern region, and lady of the country of Iveria, of the Kartalinian and Grusinian tzars, and of the Kabardinian country, of the Tscherkassians, and of the mountain princes, and of others hereditary lady and sovereign.

197 Army.

The Russian army, in time of peace, exceeds that of any other power in Europe. In 1815, it amounted to 620,415 men.

I. Guards,	3 battalions infantry -	12,150
	7 regiments horse - -	4,450
	artillery - - -	600
II. Field Troops.		
	Infantry, 141 regiments of the line, and 3 regiments marines -	317,360
	Regular cavalry, 58 regiments -	57,000
	Field artillery - - -	29,522
	Engineer corps - - -	1,113
III. Garrison Troops.		
	Infantry - - - -	72,800
	Artillery - - - -	11,500
IV. Invalids	- - - - - -	13,920
V. Irregulars	- - - - - -	100,000
		620,415

In addition to these, the national guards or landwehr amount to 612,000 men; so that Russia has altogether about a million and a quarter of men under arms.

The Russian regiments are usually encamped from the end of May to the end of August. The soldiers are allowed no straw in their tents, but each man lies on the bare and often wet ground. When he mounts guard it is for a fortnight together; but when he is taken ill, he is attended with the greatest care by the medical officers appointed by government. No expense is spared in providing hospitals, for which purpose large buildings have been constructed in the principal towns, and a proper number of physicians and surgeons attached to each. Here the patients are supplied with medicines and diet suited to the nature of their complaints. Still, however, the Russian soldiers enter the hospitals with reluctance, and leave them as soon as possible.

Notwithstanding the great population of the Russian empire, it sometimes requires the utmost stretch of arbitrary power to raise levies for recruiting the army, as the lower orders of the people are more averse to the military profession in Russia than in almost any other country. This is the more extraordinary, as the pay is tolerably good, and they are furnished in abundance with the necessaries of life. It is true that leave of absence can seldom be obtained, and each soldier is bound to serve for 25 years. The discipline is severe, and the subaltern officers may, on their own authority, inflict punishment on any private, to the extent of 20 strokes of a cane. While the soldiers remain in garrison, they are generally not allowed to marry; but when permitted to marry, there is an extra allowance for their wives and children. *

* *Tooke's Catherine II.* vol. ii.

There is one absurdity in the dress of the Russian soldiers, especially in that of the officers, which merits notice. Their waists are so pinched by the tightness of their clothes, and a leathern belt over the coat, as must certainly impede their respiration, and otherwise affect their health. †

† See *Porter's Travels.*

Of the regular troops, the imperial foot guards are the most respectable. Their uniform consists of a green coat turned up with red, with white pantaloons, and very high caps or hats, surmounted with a black feather or tuft of hair. Of the other troops, the most remarkable are the Kozaks, which form the principal cavalry of the empire. Of those there are several varieties, but the most striking are the Donsky Kozaks. The persons, air, and appointments of these troops seem completely at variance with those of the horses on which they are mounted. The men are fierce and robust, generally dressed in a blue jacket and pantaloons or loose trowsers, with a black cap surmounted by a kind of red turban. They are distinguished by formidable whiskers, and are armed with a sabre, a brace of pistols, and a long spear. Their horses are mean in shape, slouching in motion, and have every appearance of languor and debility. They are, however, extremely hardy and tractable; will travel incalculable journeys, and remain exposed, without inconvenience, to all the vicissitudes of the weather.

198 Navy.

The navy of Russia is respectable; but since her rupture with Great Britain, it has become nearly useless. It generally consists of several detached fleets, of which one belongs to the Baltic, and another to the Black sea; the former having its rendezvous at Cronstadt, the latter at Sevastopol and Kherson. There is also generally a small squadron on the Caspian. In 1794, the Baltic fleet consisted of 40 ships of the line, and 15 frigates; while that of the Black sea was composed of 8 ships of the line, and 12 frigates. The Caspian squadron consists of three or four small frigates, and a few corvettes. Besides these fleets, there was lately at Odessa in the Black sea, a flotilla consisting of 25 very large vessels, and 60 vessels of inferior size, to serve as transports for conveying troops. The Russians are said to be averse to a seafaring life, but the sailors are extremely brave. In point of neatness, the

Russia. Russian ships are inferior to those of any other European nation.

As connected with the government of the empire, we shall here notice the coins, weights, and measures, all of which are regulated by government.

199 Coins. The standard according to which the value of the Russian coins is usually estimated, is the ruble; but as the value of this coin, with respect to the money of other countries, varies according to the course of exchange between these countries and Russia, it is necessary to take into account the value of the ruble as it stands at any particular time. When Sir John Carr was in Russia in 1804, the ruble was worth only 2s. 8d. of English money, and as the course of exchange between Great Britain and Russia is now against the latter country, we may perhaps estimate the ruble at about 2s. Keeping this in view, the following table by Mr Tooke will show the value of the Russian coins.

Gold.	Imperial,	10 rubles.
	Half imperial,	5
Silver.	Ruble,	100 copecks.
	Half ruble,	50
	Quarter ruble,	25
	Twenty-copeck piece,	20
	Fifteen-copeck piece,	15
	Grievnik,	10
	Five-copeck piece,	5
Copper.	Petaki,	5
	Grosch,	2
	Copeck,	1
	Denushka,	$\frac{1}{2}$
	Polushka,	$\frac{1}{4}$

200 Weights. It is not easy to compute the Russian weights according to the standard of either avoirdupois or troy weight. The least Russian weight is called solotnik, and weighs about 68 troy grains, or a little more than one troy dram. Three *solotniks* make a *lote*, and 32 *lotes* or 96 *solotniks*, a Russian pound. Thus the Russian is to the troy pound, as 6528 is to 5760. Forty-five Russian pounds are equal to 38 Hamburgh pounds. It is usual in Russia to estimate the parts of a pound by solotniks, and not by lotes; thus, any thing that weighs 7 lotes, is said to weigh 27 solotniks.

A Russian pood weighs 40 Russian pounds, or 3840 solotniks, and is by Mr Tooke reckoned at 36 English pounds avoirdupois.

201 Measures. The measures of Russia, as in other countries, may be divided into measures of length and measures of capacity. The former are easily estimated in English measure, as the English foot was adopted by Peter the Great, and is now the standard for the whole empire. It is also divided into 12 inches, but every inch is divided into 10 lines, and each line into 10 scruples. Twenty-eight English inches make an arshine, and three arshines one sajéne, or Russian fathom, equal to 7 feet English.

A Russian verst is equal to 3500 English feet; and a geographical mile contains 6 versts, 475 sajénes, and 7.25 arshines.

Superficial measure is sometimes estimated by square versts and sajénes, but more commonly by desættines; each of which is equal to 2400 square sajénes, or 117,600 English square feet.

Of dry measures of capacity, the smallest is the *garnitza*, osmuka, or osmuschka, which is a measure capable of holding 5 Russian pounds of dried rye, and is used chiefly in measuring out corn for horses. A poltchetverick contains 614½ Paris cubic inches, or half a pood of dried rye. A polosmina contains 8 poltchetvericks, or four tchetvericks. A tonne of corn at Reval holds 5964 French cubic inches; at Riga, 6570; at Narva, 8172; and in Viborg it is equal to the weight of 6 pood. A Riga lof measures 3285 French cubic inches, and is equal to 27 cans; and a last is equal to 24 tonnes.

Of liquid measure the vedro contains 610 French cubic inches, and is equal to 5 Riga cans; a krushka or oslim is $\frac{1}{8}$, and a tchetverk $\frac{1}{4}$ of a vedro; a stoff is about 60 French cubic inches; 19 vedro make 1 hogshead, or 6 ankers, and 57 vedro amount to 152 English gallons, each containing 233 French cubic inches.

202 Laws. We have seen that in the earlier periods of Russian history, the empire was regulated by no other laws than the will of the sovereign, as promulgated in his *ukases;* and that even the first Russian code of laws, viz. those published by Ivan IV. in the 16th century, contain rather the arbitrary orders of that monarch, than such regulations as might have been the result of the deliberations of a national assembly. The code of Ivan was greatly improved by Alexei Mikhailovitch; but the late empress has the merit of giving to the empire a new and rational code, chiefly drawn up by her own hands. Of the precise nature of the laws contained in this code very little is known, as all conversation on the laws of the empire is either forbidden, or is considered as indelicate. It is not indeed of much consequence to ascertain the present existing laws, as they are subject to continual alterations.

203 Administration of justice. In 1775, the late empress made a complete new modelling of the internal government in a form of great simplicity and uniformity. By that reglement she divided the whole empire into governments, as we have already mentioned, placing over each, or, where they are of less extent, over two contiguous governments, a governor-general with very considerable powers. She subdivided each government into provinces and districts; and for the better administration of justice, erected in them various courts of law, civil, criminal, and commercial, analogous to those which are found in other countries. She established likewise in every government, if not in every province, a tribunal of conscience, and in every district a chamber for the protection of orphans. Amidst so many wise institutions, a chamber for the administration of her imperial majesty's revenues was not forgotten to be established in each government, and a tribunal of police in each district. The duty of the governor-general, who is not properly a judge, but the guardian of the laws, is to take care that the various tribunals in his government discharge their respective duties, to protect the oppressed, to enforce the administration of the laws; and when any tribunal shall appear to have pronounced an irregular sentence, to stop the execution till he make a report to the senate, and receive her majesty's orders. It is his business likewise to see that the taxes be regularly paid; and, on the frontiers of the empire, that the proper number of troops be kept up, and that they be attentive to their duty.

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This reglement contains other institutions, as well as many directions for the conducting of lawsuits in the different courts, and the administration of justice, which do her majesty the highest honour; but the general want of morals, and what we call a sense of honour, in every order of men through this vast empire, must make the wisest regulations of little avail. Russia is perhaps the only nation in Europe where the law is not an incorporated profession. There are no seminaries where a practitioner may be educated. Any man who will pay the fees of office may become an attorney, and any man who can find a client may plead at the bar. The judges are not more learned than the pleaders. They are not qualified for their offices by any kind of education, nor are they necessarily chosen from those who have frequented courts, and been in the practice of pleading. A general, from a successful or an equivocal campaign, may be instantly placed at the head of a court of justice; and in the absence of the imperial court from St Petersburgh, the commanding officer in that city, whoever he may be, presides *ex officio* in the high court of justice. The other courts generally change their presidents every year. Many inconveniences must arise from this singular constitution; but fewer, perhaps, than we are apt to imagine. The appointment to so many interior governments makes the Russian nobility acquainted with the gross of the ordinary business of law-courts; and a statute or imperial edict is law in every case. The great obstacles to the administration of justice are the contrariety of the laws, and the venality of the judges. From inferior to superior courts there are two appeals; and, in a great proportion of the causes, the reversal of the sentence of the inferior court subjects its judges to a heavy fine, unless they can produce an edict in full point in support of their decision. This indeed they seldom find any difficulty in doing; for there is scarcely a case so simple that edicts may not be found clear and precise for both parties; and therefore the judges, sensible of their safety, are very seldom incorruptible. To the principle of honour, which often guides the conduct of judges, in other nations, they are such absolute strangers, that an officer has been seen sitting in state and distributing justice from a bench to which he was chained by an iron collar round his neck, for having the day before been detected in conniving at smuggling. This man seemed not to be ashamed of the crime, nor did any one avoid his company in the evening.

Few crimes are capital in Russia; murder may be atoned for by paying a sum of money; nay, the civil magistrate takes no cognisance of murder, without having previously received information at the suit of some individuals. Criminals were punished with torture and the most cruel deaths till the reign of Catharine I. when a more merciful system took place; and this the late empress confirmed by law.

204 Punishments.

The usual punishments for crimes of inferior magnitude are, imprisonment, and banishment to the deserts of Siberia; and for crimes of greater moment, that most dreadful of all corporal punishments, the *knout*. The exact nature of this punishment has not been well understood in this country. We shall therefore explain it, from the information of one of our latest travellers in Russia.

205 The knout.

The apparatus for inflicting the punishment of the knout consists principally of a whip, composed of a wooden handle about a foot long, very strong, and bound tightly round with leather, and having attached to it a stout and weighty thong, longer than the handle; and formed of a tapering strip of buffalo's hide, well dried, and about ¼ inch thick, fastened to the handle in the manner of a flail. Besides this, the executioner is furnished with a pair of iron pincers for the purpose of slitting the nose, and another instrument shaped like a round brush, strongly set with iron teeth, for marking the forehead, or any other part of the body, according to the terms of the sentence.

The infliction of the punishment, in a case where it was peculiarly severe, (viz. that of a servant who had murdered his master) is thus described by Mr Ker Porter.

"The poor wretch, attended by part of the police, had been walked through the streets, in order to show him to the populace, and to strike them with horror at his guilt. As soon as the procession arrived in front of the troops, a circle was formed, and preparations made for the instant commencement of the execution. A paper being read aloud in the Russ language, which, most probably, was an account of his crime and sentence, he was speedily stripped of his clothes, leaving on his person only a pair of loose trowsers. In the midst of this silent groupe (and awful indeed was their silence) stood, firm and well secured, a block of wood, about three feet high, having three cavities in the top, to receive the neck and arms. Being fully prepared for his dreadful punishment, the unhappy man crossed himself, repeating his *gosperdian pomelia* with the greatest devotion. The executioner then placed him with his breast to the board, strongly binding him to it by the neck and the upper parts of his arms, passing the rope close under the bend of both knees. Thus bowed forward, the awful moment approached. The first stroke was struck, and each repeated lash tore the flesh from the bone. A few seconds elapsed between each; and for the first ten or twelve, the poor sufferer roared most terribly; but soon becoming faint and sick, the cry died away into groans; and in a few minutes after, nothing was heard but the bloody splash of the knout, on the senseless body of the wretched man.

"After full an hour had been occupied in striking these dreadful blows (and more than 200 were given him), a signal was made from the head officer of the police, and the criminal was raised a little from the block. Not the smallest sign of life seemed to remain; indeed, so long did it appear to have fled, that during the half of the lashing, he had sunk down as low as the ligatures which bound him would allow. The executioner took the pale and apparently lifeless body by the beard, while his assistant held an instrument like a brush with iron teeth, and placing it a little below his temple, struck it with the utmost force, and drove its pointed fangs into the flesh. The opposite temple and forehead received the same application. The parts thus pierced, were then rubbed with gunpowder, to remain, should the mangled sufferer survive, a perpetual mark of his having undergone the punishment.

"You would suppose that rigour had exhausted all her torments, and justice was now appeased: But no; another punishment yet remained, to deprive the nose of its nostrils. The inflicting pincers, something like monstrous-

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strous curling irons, were inserted up the nose of him whom I supposed dead (and indeed I only endured the latter part of the sight, from having imagined that these inflictions were directed to one already past the sense of pain); the performer of this dreadful sentence, aided by his companion, actually tore each from his head in a way more shocking than can be described. The acuteness of this last torture, brought back sense to the torpid body:—What was my horror, to see the writhings of the poor mangled creature; and my astonishment, as soon as he was unbound, to see him rise by the assistance of the men, and walk to a cart ready to return him to his prison. From whence, if he did not die, he was immediately to be conveyed to Siberia, there to labour for life. His lost strength seemed to revive every moment, and he sat in the vehicle perfectly upright, being covered with his caftan, which he himself held upon his shoulders, talking very composedly with those who accompanied him. *

* *Porter's Travelling Sketches*, vol. ii. p. 21.

206 Religion.

The established religion of Russia is that of the Greek church, which differs little from the Roman Catholic persuasion, except in a few rites and ceremonies. The people are very strict in the observance of the external forms of worship, as attendance on mass, keeping numerous fasts, performance of domestic devotions morning and evening, confession, receiving the sacrament, &c. To build churches is considered as a meritorious act; and hence even the small towns abound in these religious edifices; and as, from the severity of the winter, it is necessary to heat the churches during that season, it is not uncommon to see two churches in the same churchyard; one used for winter, and the other for summer worship. The clergy are held in great honour; and every one meeting a priest kisses his hand, in return for which he receives his blessing with the sign of the cross. From the external ceremonies of the Greek church, we shall select those of baptism, marriage, and burial.

207 Baptism.

As soon as a child is born, the priest repairs to the chamber of the mother, and offers up a thanksgiving for her and her infant. On the eighth day the child is carried to the church, and receives its name, in addition to which is given that of the saint to which the day is dedicated. Thirty-two days after this the purification of the mother takes place, after which succeeds the baptism itself. The child is dipped three times, and then immediately anointed on several parts of the body, and signed with the cross. Seven days after unction, the body of the child is washed, and its head is shorn in the form of the cross; and, in general, a little cross of gold or other precious material, is suspended from its neck.

208 Marriage ceremony.

The marriage ceremony in the Greek church consists of three parts. The first office is that of the espousals or betrothing. The parties pledge themselves to be true to each other, by the interchange of rings; and the priest before whom the vows are made, presents lighted tapers to the contracting pair. The liturgy being said, the priest places the parties who come to be betrothed, before the door which leads into the sanctuary, while two rings are laid on the holy table. The priest makes the sign of the cross three times on the heads of the betrothed couple; and then touching their foreheads with the lighted tapers, presents one to each. Then follows the benediction, with a few short prayers, after which the priest takes the rings, and gives one to the man, and the other to the woman, with a short address, which he repeats thrice to each, signs them on the forehead with the rings, and puts these on the forefingers of their right hands. The espoused couple then exchange their rings, and after a long prayer from the priest, are dismissed.

The second rite is called the matrimonial coronation, as in this the bride and bridegroom are crowned, to indicate their triumph over all irregular desires. The betrothed parties enter the sanctuary with lighted tapers in their hands, the priest preceding with the censor singing the nuptial psalm, in which he is accompanied by the choristers. After being assured of the inclination of each party to receive the other in wedlock, the priest gives them the holy benediction, and after three invocations, takes the crowns, and places one on the head of the bridegroom, and the other on that of the bride. After this is read St Paul's epistle on the duties of marriage, with some other portions of Scripture, and several prayers. The cup is then brought, and blessed by the priest, who gives it thrice both to the bride and bridegroom, after which he takes them by the hand, and leads them in procession, attended by bridemen and maids, three times round a circular spot, turning from west to east. The crowns are now taken off their heads; and after proper addresses, and a short prayer, the company congratulate the parties: these salute each other, and the ceremony of coronation is terminated by a holy dismission.

The third rite is called that of dissolving the crowns, and takes place on the eighth day. It consists of little more than a prayer for the comfort and happiness of the married pair, after which the bride is conducted to the bridegroom's house.

209 Funeral service.

On the death of a person, after the usual offices of closing the eyes and mouth, and washing the body, are performed, the priest is sent for to perfume the deceased with incense, while prayers and hymns are said and sung beside the corpse. The body is watched for a longer or shorter time, according to the rank of the deceased; and when all things are ready for the interment, those relations who are to act as mourners and pall-bearers, are called together. Before the coffin is closed, the ceremony of the kiss must be performed, as the last respect paid to the body. The priest first, and then the relations and friends, take their farewell, by kissing the body of the deceased, or the coffin in which it is contained. The funeral service then begins with the priest pouring his incense from the holy censer on the coffin and the attendants, after which he gives the benediction, and the choristers chant suitable responses. The coffin is then carried into the church, the priests preceding with a lighted taper, and the deacon with the censer. When the procession reaches the sanctuary, the body is set down; the 91st psalm is sung, followed by several anthems and prayers. The corpse is then laid into the grave, while the funeral anthem to the Trinity is sung over it; and the ceremony of sprinkling earth on the coffin, usual in most countries, is performed. After this, oil is poured from a lamp on the coffin, and incense again diffused. The grave is next covered in, and the ceremony ends with a prayer to the Saviour for the rest and eternal happiness of the deceased.

Those who wish for a more minute account of these and

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and other ceremonies of the Greek church, may consult Mr Ker Porter's *Travelling Sketches*, vol. i. letters 8, 9, and 10.

210 Greek hierarchy.

The hierarchy of the Russians consists of three metropolitans, seven archbishops, and 18 bishops. We have seen that there was originally at the head of the church a patriarch, who possessed all the power of the Roman pope. This office was abolished by Peter I. The whole number of ecclesiastics belonging to the church of Russia, is computed at 67,900, and the number of churches at 18,350.

211 Monasteries.

There are several monasteries and convents in the Russian empire, where the monks and nuns, as in Roman Catholic countries, lead a life of seclusion and indolence, though their inhabitants are not subject to such severe restrictions as those of the Catholic persuasion. The heads of the monasteries are called *archimandrites* or *hegumens*, the former being nearly synonymous with abbot, the latter with prior. The superior of a nunnery is called *hegumena*. The principal religious order is that of St Basil; and the chief monasteries are those of St Alexander Nefsky at St Petersburgh, and Divitchy at Moscow.

212 Toleration.

Formerly no religion, except the Greek, was tolerated in Russia; but, since the reign of Peter I., all religions and sects are tolerated throughout the empire. It was indeed with great difficulty that Peter could be prevailed on to allow the free exercise of the Roman Catholic religion; but this is now not only tolerated, but is dignified by the establishment of Russian Catholic bishops. Even the despised Jews are permitted to hold their synagogues, and the Mahometans their mosques.

213 Language.

The Russian language is a dialect of the ancient Gothic, and is extremely difficult of pronunciation by a southern European; though in the mouth of the politer Russians, it appears by no means deficient in melody. It is very difficult to acquire, as it abounds with extraordinary sounds and numerous anomalies. The characters amount to at least 36, some of which resemble those of the Greek language, while others are peculiar to the Russ. Among other singularities there is one character to express *sch*, and another *ssch*, which latter sound is said to be scarcely capable of enunciation, except by the most barbarous of the Russian natives. See PHILOLOGY, N° 220.

214 Present state of literature in Russia.

Since the accession of the emperor Alexander, the literature of Russia has undergone a material improvement. Incredible indeed, was the pressure of the rigorous genius-destroying restrictions and prohibitory edicts under the reign of Paul, of the state of whose mind, continually tormented with suspicion, but in other respects endowed with many good qualities, so striking a picture has been drawn by Kotzebue, in *The most Remarkable Year of his Life*, of which a Russian translation has been published. During that inauspicious season, only a few plants sprang up here and there in the garden of Russian literature, chiefly in Petersburgh, and for the glorification of imperial institutions. Among these, for instance, may be reckoned the Cabinet of Peter the Great, written in the Russian language by Joseph Bieliajen, under librarian to the Academy of Sciences, and splendidly printed in 1800, at the expense of the academy, in three large quarto volumes. It is intended to be a catalogue of the books, natural curiosities, works of art, medals, pictures, and other treasures, which the academy founded by Peter the Great possesses; but it is to be feared, that this list itself will swell to a library, if the succeeding parts should be written in the same spirit as the first three. The first volume contains only the relicks of Peter the Great, with five plates, comprehending even the productions of his turning lathe, which are preserved as is well known, in a separate apartment. The second volume gives some, but extremely defective accounts of the Academic Library, in which there are 2964 Russian works (and among them not fewer than 305 Russian romances!) and 1350 MSS. (236 of them Chinese, and 410 relating to the history of Russia). In the third volume, the cabinet of medals is illustrated. It is really astonishing how many curiosities and exquisite works of art have from every part of Europe been collected in St Petersburgh, especially under the reign of Catherine II. What treasures of art and literature are to be found only in the imperial hermitage! Here, for instance, is the most valuable and complete collection of ancient engraved gems, of which the celebrated collection of the duke of Orleans composes only a small part. Here the libraries of Voltaire and Diderot are placed, containing their MSS and manuscript notes on the margins of the books. M. Von Köhler, a German, is the keeper of these treasures; and the antiquarian writings which he has published in the French and German languages, sufficiently prove him to be a proper person for such an office. It is, however, an unfortunate circumstance for the rest of Europe, that it is difficult to learn what has been swallowed up by these repositories on the banks of the Neva. It is therefore to be lamented, that the splendid description of the Michaelowitzian palace has since the death of Paul been discontinued. From what Kotzebue has said concerning it in the second volume of the account of his exile, one may guess what immense quantities of curiosities it contained. At present only three large engravings of the external views of the now deserted palace, are to be obtained at the price of 40 rubles. Of Gotschiza too, the favourite residence of Paul, and which the new emperor has presented to the empress dowager, we have a view in six large sheets, engraved before the death of the late emperor, and giving us at least a general idea of the plan of the extensive pleasure grounds, &c.

There is no longer any doubt that the new university of Dorpat, which has already cost the nobility of Esthonia and Livonia more than 100,000 rubles, will at length be established by authority. Several learned men were invited from foreign countries to fill the professional chairs, and some of them had arrived in the beginning of 1802. The military academy, which has likewise been erected at Dorpat, has received great favour and support from the emperor. Full permission is now again granted to visit foreign schools and universities; and in consequence, about 70 Livonians, Esthonians, and Courlanders, now prosecute their studies at the university of Jena; and proportionate numbers at the universities of Germany.

The book-trade, which had been entirely annihilated, has for the most part broken the iron fetters imposed by the licensers; it is indeed a highly beneficial change, that no Timanskow, and other Russian zealots, but Germans, are appointed to examine German books. Here, however, many things still require to be corrected,

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ed. The new emperor, notwithstanding his almost incredible activity, cannot at once discover all the abuses and improper applications of some of the laws, nor by an emmenoï ukase, open to every innoxious book (as was the case with respect to Kotzebue's *Most Remarkable Year*) the gate that had been shut against it by the licensers. For Kotzebue's work would not have been permitted to pass, if the procurator-general in St Petersburgh had not laid a copy before the emperor himself, and received a particular ukase in its favour. Another great impediment to literature is, that all books must be imported by sea; and consequently during the winter no new publications can be procured from abroad. The greatest difficulty in procuring books, however, arises from the circumstance that a Russian *ukase* always remains in full force till it be expressly repealed by another. Previous to the reign of Paul, the examination and licensing of books was entrusted to the chief magistrates of the respective capitals; but Paul appointed inferior licensers for that purpose, and the same regulation continues, unless altered by a particular *ukase*. Under Paul, nothing was permitted to be printed in the large printing-office of Reval, except advertisements, playbills, hymns for the Reval hymn book, and the weekly newspaper, the articles contained in which were subjected to a strict previous examination; and the same restrictions continued to be enforced in 1802, though repugnant to the emperor's intentions, because no *emmenoï ukase* had been published to abolish them. A wine merchant in Reval was desirous of having some tickets printed, for the purpose of distinguishing his different sorts of wine. At first the licenser would not permit any of the French wines to have their names printed, and when at last he relented with respect to this point, the printing of the words *St Uber's* wine, and *bishop*, a well-known drink composed of wine and oranges, was deemed by him quite inadmissible, because St denotes saintship, and ought not to be profaned by being affixed to a wine bottle, and because bishop denotes an ecclesiastical dignity, and of course should not be exposed to a similar profanation. *

* *Monthly Magazine*, vol. xiii. p. 215.

A new school of practical jurisprudence has lately been established at St Petersburgh. Here there are four professors who give lectures on the law of nature and nations, on the Roman law, on ethics, and on the history of Russia, besides a course of lectures on the commission of legislation. All the lectures are in the Russian language.

The Academy of Sciences at St Petersburgh have formed the plan of a rule for the manner of writing Russian words with foreign characters, and foreign words with Russian characters. This plan consists of a vocabulary, drawn up by a committee of the academy, and composed of two alphabets, German and French, by means of which the proper orthography and pronunciation of words in the Russian language are rendered intelligible to foreigners.

For a fuller account of the language and literature of Russia, we may refer our readers to Tooke's *View of the Russian Empire*, vol. iii. p. 572., and his *Life of Catharine II.* vol. iii. p. 394.

215 State of the Russian stage.

Notwithstanding the partiality of the court of St Petersburgh for dramatic exhibitions, no idea was entertained of erecting a Russian theatre in the capital till the year 1756. Feodor Wolchof, the son of a merchant of Yaroslavl had, in 1749, erected a theatre in his native city, in consequence of the delight with which he had been inspired on witnessing the exhibitions of the German players at the capital. Accordingly, when he returned home, he fitted up a large saloon in his father's house for a theatre, and painted it himself; then mustering a small company, consisting of his four brothers and some other young persons, he represented sometimes the sacred pieces of the bishop Dimitri Rostoffschy, sometimes the tragedies of Sumarokof and Lomonossof, which had just appeared; and at other times, comedies and farces of his own composition. The undertaking of Wolchof met with the greatest encouragement. Not satisfied with lavishing applause upon him, the neighbouring nobility furnished him in 1750 with the requisite funds for erecting a public theatre, where money was taken for admission. The report of this novelty reached St Petersburgh, and in 1752 the empress Elizabeth sent for Wolchof's company. He was placed, with several of his young actors, in the school of the cadets, to improve himself in the Russian language, and in particular to practise declamation.

At length, in 1756, the first Russian theatre was formally established by the exertions of Sumarokof, and the actors paid by the court. A German company appeared in 1757, but it was broken up by the arrival of an Italian opera. The opera Buffa formed in 1759 at Mosco had no better success; its failure was favourable to that which remained at St Petersburgh, and which received so much the more encouragement. The fireworks displayed on the stage after the performance, afforded great amusement to the public, and drew together more company than the music. At the coronation of the empress Catharine II., the Russian court theatre accompanied her to Mosco, but soon returned to St Petersburgh, where it has been fixed ever since. The taste for dramatic exhibitions had at this period become so general, that not only the most distinguished persons of the court of the two capitals performed Russian plays, but Italian, French, German, and even English theatres arose, and maintained their ground for a longer or shorter time. Catharine the Great, desirous that the people should likewise participate in this pleasure, ordered a stage to be erected in the great place in the wood of Brumberg. There both the actors and the plays were perfectly adapted to the populace that heard them. What will seem extraordinary is, that this performance sometimes attracted more distinguished amateurs; and it is perhaps the only theatre where spectators have been seen in carriages of four and six horses. But what is still more surprising is, to see actors ennobled as a reward for their talents, as was the case in 1762, with the two brothers Feodor and Gregory Wolchof. The former died the following year, while still very young. His reputation as a great tragic and comic actor will perhaps one day be considerably abated; but the Russians will ever recollect with gratitude that he was the real founder of the Russian stage.

They will likewise remember the services of Sumarokof as a tragic poet. He first showed of what the Russian language, before neglected, was susceptible. Born at Mosco in 1727, of noble parents, he zealously devoted himself to the study of the ancient classic authors and of the French poets. This it was that roused his poetic talents. His early compositions were all on the

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the subject of love. His countrymen admired his songs, and they were soon in the mouth of every one. Animated by this success, Sumarakof published by degrees his other poetical productions. Tragedies, comedies, psalms, operas, epitaphs, madrigals, odes, enigmas, elegies, satires; in a word, every species of composition that poetry is capable of producing, flowed abundantly from his pen, and filled not less than ten octavo volumes. His tragedy, Choruf, was the first good play in the Russian language. It is written in Alexandrine verses, in rhyme, like his other tragedies, as Hamlet, Sinaw and Trumor, Aristona, Semira, Ngaropolk and Dimisa, the false Dimitri, &c.; and this first performance showed, that in the plan, the plot, the character, and style, he had taken Corneille, Racine, and Voltaire, for his models. Though Sumarakof possessed no very brilliant genius, he had, however, a very happy talent of giving to his tragedies a certain originality, which distinguished them from those of other nations. He acquired the unqualified approbation of his countrymen by the selection of his subjects; almost all of which he took from the Russian history, and by the energy and boldness which he gave to his characters. But his success rendered him so haughty and so vain, that he could not endure the mildest criticism. Jealous of the fame acquired by Lomonossof, another Russian poet, he sought every opportunity of discouraging him; and it was a great triumph to Sumarakof to observe that the public scarcely noticed the first dramatic essays of that writer, and that they were soon consigned to oblivion.

Sumarakof has likewise written a great number of comedies, in which the manner of Moliere is discoverable. In spite of their original and sometimes low humour, they were not much liked. The principal are, the Rival Mother and her Daughter; the Imaginary Cuckold; the Malicious Man, &c. He has composed some operas; among others, Cephalus and Procris, set to music by d'Araja, master of the imperial chapel, and represented for the first time at St Petersburgh during the carnival of 1755. The performers of both sexes were children under the age of 14. *

* *Monthly Magazine*, vol. xxi. p. 115.

216 Agriculture.

The state of agriculture in the Russian empire is of course extremely various. Husbandry is scarcely known in the northern parts of the governments of Olonetz and Archangel; but in the central parts of the empire has been pursued from the earliest ages. The Russian plough is light and simple, and scarcely pierces the ground to the depth of two inches; but in the southern provinces a heavier kind is used, resembling the German. In what is called the summer field, the corn is sown and reaped in the same year; while in the winter field the corn is sown in autumn, and the produce reaped in the ensuing summer. The former yields what is called summer wheat, and rye, barley, millet, buckwheat, flax, hemp, peas, &c. the latter only wheat or rye; and the winter field is commonly left fallow to the following spring. In general, agriculture is conducted with great negligence, yet the harvests are abundant. Even in the neighbourhood of St Petersburgh, there are large marshes which might be easily drained, and converted into fertile land. In the north, rye is most generally cultivated; but in the middle and southern regions, wheat; in the government of Ekatarinoslaf the Arnautan wheat is beautiful, the flour yellowish, the return commonly fifteen fold: nor is Turkish wheat, or maize, unknown in Taurida. Barley is a general production, and is converted into meal, as well as oats, of which a kind of porridge is composed. Rice succeeds well in the vicinity of Kislear. Potatoes are unaccountably neglected, except in the north. This invaluable root bears the cold of Archangel, and yields from 30 to 50 fold. Flax and hemp form great objects of Russian cultivation. Madder, woad, and saffron, grow wild in the south. The hop is also cultivated, and is found wild near the Uralian chain, and in Taurida. Tobacco has been produced since the year 1763, chiefly from Turkish and Persian seed. In the gardens are cultivated cabbages (of which a great number is consumed in the form of sour-krout), and other plants common in Europe. The government of Moscow produces abundance of excellent asparagus, and sugar-melons abound near the Don and the Volga. Large orchards are seen in the middle and southern parts of Russia, yet quantities of fruit are imported. What is called the Kireskoi apple often weighs four pounds, is of an agreeable flavour, and will keep a long time. A transparent sort from China, is also cultivated, called the Nalivni, melting and full of juice. The culture of the vine has been attempted in the south, and will certainly succeed in Taurida. Bees are not known in Siberia, but form an object of attention in the Uralian forests, where proprietors carry their hives to a considerable height in large trees, and they are secured from the bear by ingenious contrivances described by Mr Tooke. Mulberry trees and silk are not unknown in the south of European Russia, especially in Taurida and the Krimea. In the Krimea, camels are very commonly used for draught, a custom which seems peculiar to that province.

217 State of the arts.

The arts in Russia have received very considerable improvement within the last 50 years. Most of the arts that relate to luxuries are exercised at St Petersburgh, to such an extent, and in such perfection, as to render it unnecessary to import these articles from other countries. The chief works of this kind are those of gold and silver goods. Here are 44 Russian and 139 foreign, consequently in all 183 workers in gold, silver, and trinkets, as masters; and besides them several gilders and silverers. The pomp of the court, and the luxury of the rich and great, have rendered a taste in works of this kind so common, and carried the art itself to such a pitch, that the most extraordinary objects of it are here to be met with. Several of them are wrought in a sort of manufactory; in one set of premises are all the various workmen and shops for completing the most elegant devices, ornamental and useful, from the rough bullion. Even the embroiderers in gold and silver, though they are not formed into a company, are yet pretty numerous. The works they produce are finished in so high a taste, that quantities of them are sold in the shops that deal in English or French goods, and to which they are not inferior. This business, which is a perpetual source of profit to a great number of widows and young women of slender incomes, forms a strong objection to the declamations against luxury. Perhaps the remark is not unnecessary, that sham laces and embroidery cannot here be used, even on the stage. Next to these may be ranged the host of milliners, who are mostly of French descent; and here, as in Paris, together with their industry, are endowed with a variety of agreeable

agreeable and profitable talents. Their numbers are daily increasing; and the greater their multitude, the better they seem to thrive. Their works are neat, elegant, and modish; but they certainly bear an enormous price: a *marchande dés modes*, if she understand her business, is sure to make a fortune. The generality of them, after completing this aim, return to their native country.

The coachmaker's trade is likewise here in a flourishing state. The great concerns in which this business is carried on in all its parts, from the simple screw to the finest varnish; the solidity and durability, the elegance and the taste of the carriages they turn out, the multitude of workmen, and, in short, the large sums of money that are employed in them, which would otherwise be sent abroad for these vehicles, render this business one of the most consequential of the residence. In the judgment of connoisseurs, and by the experience of such as use them, the carriages made here yield in nothing to those of Paris or London; and in the making of varnish the Russians have improved upon the English: only in point of durability the carriages are said to fall short of those built by the famous workmen of the last-mentioned nation; and the want of dry timber is given as the cause of this failure. With all these advantages, and notwithstanding the great difference in price, increased by the high duties of those carriages which come from abroad, yet these are yearly imported to a great amount. The Russians have, however, succeeded in appropriating the greater part of this business to themselves. The shape of their carriages is in the height of the mode; the varnish is excellent, and the whole outward appearance elegant and graceful: but for durability, the reputation of the Russian workmen is inferior to that of the Germans settled in this country. This censure applies to all the Russian works of art; their exterior is not to be found fault with, but they are deficient in the solidity which so much recommends the work of foreign artists. The Russians have indeed to contend with an obstacle that renders it almost impossible for them to employ so much time, labour, and expense, on their work, as are requisite for bringing it to the utmost perfection. This is the general prejudice in favour of British commodities, which is nowhere carried to so high a pitch as it was in Russia a few years ago. The Russian workman, therefore, naturally endeavours to impose his work upon the customer for foreign; and where this is not practicable, he is obliged to sacrifice solidity to outward appearance, for which alone he can expect to be paid. A chariot made by a German coachmaker will cost 600 or 700 rubles, whereas a Russian chariot can be bought for half the money; and it sometimes happens that the latter is even more durable than the former.

Joinery is exercised as well by the Russians as the Germans; but the cabinet-maker's art, in which the price of the ingenuity far exceeds the value of the materials, is at present solely confined to some foreigners, among whom the Germans distinguish themselves to their honour. The artists of that nation occasionally execute masterpieces, made at intervals of leisure under the influence of genius and taste, and for which they find a ready sale in the residence of a great and magnificent court. Thus, not long since one of these made a cabinet, which for invention, taste, and excellency of workmanship, exceeded every thing that had ever been seen in that way. The price of this piece of art was 7000 rubles; and the artist declared, that with this sum he should not be paid for the years of application he had bestowed upon it. Another monument of German ingenuity is preserved in the Academy of Sciences, in the model of a bridge after a design of the state counsellor Von Gerhard. This bridge, which would be the most magnificent work of the kind, if the possibility of its construction could be proved, consists of 11 arches, a drawbridge for letting vessels pass, distinct raised footways, landing places, &c. The beauty of the model, and the excellency of its execution, leave every thing of the sort very far behind. The Empress Catharine II. rewarded the artificer with a present of 4000 rubles, and he was ever after employed by the court.

Both these works of art have been, however, far excelled by a writing desk made by Rœntgen, a native of Neuwied, and a Moravian, who lived several years in St Petersburgh, and embellished the palaces of the empress and principal nobility with the astonishing productions of his art. In this writing desk the genius of the inventor has lavished its riches and its fertility in the greatest variety of compositions: all seems the work of enchantment. On opening this amazing desk, in front appears a beautiful group of bas-reliefs in bronze superbly gilt; which, by the slightest pressure on a spring, vanishes away, giving place to a magnificent writing-flat inlaid with gems. The space above this flat is devoted to the keeping of valuable papers or money. The bold hand that should dare to invade this spot would immediately be its own betrayer; for, at the least touch of the table part, the most charming strains of soft and plaintive music instantly begin to play upon the ear, the organ whence it proceeds occupying the lower part of the desk behind. Several small drawers for holding the materials for writing, &c. likewise start forward by the pressure of their springs, and shut again as quickly, without leaving behind a trace of their existence. If we would change the table part of the bureau into a reading-desk, from the upper part a board springs forward, from which, with incredible velocity, all the parts of a commodious and well contrived reading-desk expand, and take their proper places. The inventor offered this rare and astonishing piece to the empress Catharine II. for 20,000 rubles; but she generously thought that this sum would be barely sufficient to pay for the workmanship; she therefore recompensed his talents with a farther present of 5000 rubles. Her majesty presented this matchless piece of art to the Academy of Sciences, in whose museum it still remains. *

* Tooke's Catharine II. vol. I. p. 50.

The Russian skill in architecture is evinced by the magnificent buildings which adorn the city of St Petersburgh, and more especially by the Taurida palace. Here is seen the largest hall of which we have any account. This prodigious hall was built after the unassisted design of Prince Potemkin, and unites to a sublime conception, all the graces of finished taste. It is supported by double rows of colossal doric pillars, opening on one side into a vast pavilion, which forms the emperor's winter garden. This garden is very extensive, the trees chiefly orange, of an enormous size, sunk in the earth in their tubs, with fine mould covering the surface between them. The walks are gravelled; wind and undulate in a very delightful manner; are neatly turfed, and

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and lined with roses and other flowers. The whole pavilion is lighted by lofty windows, and from the ceiling are suspended several magnificent lustres of the richest cut glass. In the enormous hall of which this garden forms a part, Prince Potemkin gave the most sumptuous entertainment ever recorded since the days of Roman voluptuousness. *

* Carr's Northern Summer, p. 331.

218 Manufactures.

Among the Russian manufactories, the imperial establishments are so much distinguished for the magnitude of their plan, and the richness and excellence of their productions, that they may enter into competition with the most celebrated institutions of the same kind in any other country. The tapestry manufactory, which weaves both hangings and carpeting, produces such excellent work, that better is not to be seen from the Gobelines in Paris. The circumstance that at present only native Russians are employed, enhances the value and curiosity of the establishment. Nowhere, perhaps, is the progress of the nation in civilization more striking to the foreigner than in the spacious and extensive work rooms of this manufactory. The porcelain manufactory likewise entertains, excepting the modellers and arcanists, none but Russian workmen, amounting in all to the number of 400, and produces ware that, for taste of design and beauty of execution, approaches near to their best patterns. The clay was formerly brought from the Ural, but at present it is procured from the Ukraine, and the quartz from the mountains of Olonetz. It is carried on entirely at the expense of government, to which it annually costs 15,000 rubles in wages, and takes orders. But the price of the porcelain is high; and the general prejudice is not in favour of its durability. The Fayence manufactory has hitherto made only ineffectual attempts to drive out the queen's ware of England; but the neat and elegant chamber-stoves made there give it the consequence of a very useful establishment. Almost all the new built houses are provided with the excellent work of this manufactory, and considerable orders are executed for the provinces.

A bronze manufactory, which was established for the use of the construction of the Isaak church, but works now for the court and private persons, merits honourable mention, on account of the neatness and taste of its executions.

The stone-cutting works of Peterhof are remarkable for the mechanism of their construction. All the instruments, saws, turning lathes, cutting and polishing engines, are worked by water under the floor of the building. Fifty workmen are here employed in working foreign, and especially Russian sorts of stone, into slabs, vases, urns, boxes, columns, and other ornaments of various kinds and magnitudes. Many other imperial fabrics for the use of the army, the mint, &c. are carried on in various places; but the description of them would lead us beyond our limits.

The number of private manufactories at present subsisting in St Petersburgh amounts to about 100. The principal materials on which they are employed, some on a larger and others on a smaller scale, are leather, paper, gold and silver, sugar, silk, tobacco, distilled waters, wool, glass, clay, wax, cotton and chintz. Leather, as is well known, is among the most important of their manufactures for the export trade; accordingly here are 16 tan-works. The paper manufactories amount to the like number, for hangings and general use. Twelve gold and silver manufactories sell threads, laces, edgings, fringes, epaulets, &c. There are 8 sugar works; 7 for silk goods, gauze, cloths, hose, stuffs and several others. Here must not be forgotten the great glass-houses set on foot by Prince Potemkin, where all the various articles for use and ornament, of that material, are made; but particularly that for looking glasses, where they are manufactured of such extraordinary magnitude and beauty, as to exceed any thing of the kind produced by the famous glass-houses of Murano and Paris. Among many others which we cannot here particularize, are not fewer than five letter foundries, one manufactory for clocks and watches, &c.

219 Commerce.

In giving a general view of the commerce of the Russian empire, it will be necessary that we should first enumerate the exports and imports, with their average amount, and we shall then be able, by comparing these, to form a just estimate of the commercial advantages enjoyed by the empire. Mr Tooke has furnished us with the following statements of the annual exports from St Petersburgh, on an average of ten years, from 1780 to 1790. During that time there were annually exported,

Iron,	2,655,038	poods.
Saltpetre,	19,528	do.
Hemp,	2,498,950	do.
Flax,	792,932	do.
Napkins and linens,	2,907,876	arschines
Sail-cloth and flems,	214,704	pieces.
Cordage,	106,763	poods.
Hemp oil and linseed oil,	167,432	do.
Linseed,	192,328	do.
Tobacco,	52,645	do.
Rhubarb,	129	do.
Wheat,	105,136	do.
Rye,	271,976	do.
Barley,	35,864	do.
Oats,	200,000	do.
Masts, 1456		
Planks, 1,193,125		
Boards, 85,647		
Rosin,	7,487	do.
Pitch,	9,720	do.
Tar,	37,336	do.
Train oil,	81,386	do.
Wax,	10,467	do.
Tallow, and tallow candles,	943,618	do.
Potashes,	31,712	do.
Isinglas,	5,516	do.
Caviar,	8,958	do.
Horse hair,	5,635	do.
Horse tails, 69,722		
Hogs bristles,	29,110	do.
Russia matts, 106,645		
Goats skins, 292,016		
Hides and sole leather,	144,876	do.
Pieces of peltry, 621,327		
Ox tongues, 9982		
Ox bones, 73,350		

It will be seen from the above table, that a very great proportion of the exports of Russia consists of raw materials, or of the unmanufactured products of the country. Indeed the employment of the nation, considerably as it has increased since the time of Peter I., is still directed more to production than to manufacture. This is

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is the natural progress of every human society advancing towards civilization; and Russia must continue to confine itself to the production and to the commerce in products, till the degree of its population, and the employment of its inhabitants, be adequate to the manufacturing of its raw materials.

The buying up of the foregoing articles, and their conveyance from the remote and midland regions of the empire, form an important branch of the internal commerce. The greater part of these products is raised on the fertile shores of the Volga; and this inestimable river, which, in its course, connects the most distant provinces, is at the same time the channel of business and industry almost to the whole empire. Wherever its water laves the rich and fruitful coast, diligence and industry have fixed their abode, and its course marks the progress of internal civilization. St Petersburgh, though at a distance of from 5000 to 6000 versts from the rich mines of Siberia, receives, through the medium of this river, the stores of its enormous magazines, the greater part of which are brought thither from the most eastern districts of Siberia, almost entirely by water. The Selenga receives and transfers them to the Baikal, whence they proceed by the Angara to the Yenissy, and pass from that river along the Oby into the Tobol. Hence they are transported over a tract of about 400 versts by land, to the Tchussovaiya; from this river into the Kamma, and thence into the Volga, from which they pass through the sluices at Vishney-Volotshok into the Volkhof, and from that river into the Ladoga lake; from which, lastly, after having completed a journey through two quarters of the globe, they arrive by the Neva, at the place of their destination. This astonishing transport is rendered still more interesting by the consideration that these products, thus conveyed to St Petersburgh from the neighbourhood of the north-eastern ocean, remain here but for a few weeks, for the purpose of again setting out on a second, and perhaps a longer voyage, or, after being unshipped in distant countries, of returning hither under an altered form, and by a tedious and difficult navigation, coming back to their native land. Thus, how many scythes of the Siberian boors may have gone this circuitous course!

The number of vessels which, taking the average of ten years, from 1774 to 1784, came by the Ladoga canal to St Petersburgh, was 2861 barks, 797 half-barks, 508 one masted vessels, 1113 chaloups; in all 5339. If to these we add 6739 floats of balks, we shall have a total of 12,078.

The value in money of these products is, by the want which Russia experiences of wrought commodities, and by the increasing luxury, so much lessened, that the advantage on the balance is proportionally very small. A list of the articles of trade with which St Petersburgh annually furnishes a part of the empire, would afford matter for the most interesting economical commentary.

The annual imports brought to St Petersburgh, on an average of ten years from 1780 to 1790, will appear from the following table.

	Rubles.
Silken stuffs to the amount of, -	2,500,000
Woolen stuffs, - -	2,000,000
Cloth, - - -	2,000,000
Cotton stuffs, - - -	534,000
Silk and cotton Stockings, 10,000 dozen pairs.	
Trinkets, - - - -	700,000
Watches, 2000.	
Hardware, - - -	50,000
Looking glasses, - -	50,000
English stone-ware, - -	43,800
English horses, 250.	
Coffee, 26,300 poods.	
Sugar, 372,000 poods.	
Tobacco, 5000 poods.	
Oranges and lemons, - -	101,500
Fresh fruit, - - -	65,000
Herrings, 14,250 tons.	
Sweet oil, - - -	20,000
Porter and English beer, -	262,000
French brandy, 50,000 ankers.	
Champagne and Burgundy, 4000 pipes.	
Other wines, 250,000 hogsheads.	
Mineral waters, - -	12,000
Paper of different kinds, - -	42,750
Books, - - -	50,150
Copper-plate engravings, - -	60,200
Alum, 25,500 poods.	
Indigo, 3830 poods.	
Cochineal, 1335 poods.	
Glass and glass wares, - -	64,000
Scythes, 325,000, &c. &c.	

A considerable part of these commodities remains for consumption at St Petersburgh, while the rest is conveyed by land carriage to various parts of the empire. Land-carriage is preferred on these occasions, as the passage of the river up the stream would be tedious and expensive. The carts or sledges made use of in this conveyance are generally drawn by one horse, and have each its own driver; though sometimes on long journeys there is only one driver to every three carts. They commonly go in caravans of from 25 to 100 carts.

According to the above tables, we are now enabled to state the value of the exports and imports, and the balance of trade, at St Petersburgh; and from these to deduce pretty just conclusions with respect to the commerce of the whole empire. By the most probable estimation on this same average of 10 years from 1780 to 1790, the statement will stand as follows.

Exports, - -	13,261,942 rubles
Imports, - -	12,238,319 do.

Thus the amount of the whole commerce of St Petersburgh during the above period of ten years, was annually 25,837,325 rubles. The commerce of Russia by sea, exclusive of the Caspian sea, was stated by Storch at 30 millions of rubles of exports; but including the Caspian sea, and the commerce with China and other countries by land, he estimates the whole exports in 1796 at 50 millions of rubles. In 1805 they were stated by Crome at 72,400,000 of rubles; and from the increasing numbers of the population, must now be much greater. The imports according to the official statements are always less than the exports. The trade by land with China and other parts of Asia, is stated to employ 38,000 persons as carriers.

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The proportion which the other principal sea-ports of the Russian empire share in the general commerce, will appear from the following table, drawn up for the year 1793.

	Rubles.
St Petersburgh,	23,757,954
Riga,	8,985,929
Archangel,	2,525,208
Taganrok,	428,087
Eupatoria,	334,398
Narva,	238,555
Otchakof,	209,321
Pernau,	189,131
Cronstadt,	157,365
Kherson,	147,822
Vyborg,	124,832
Reval,	109,897
Theodosia,	54,281
Friedrischshamm,	31,374
Kertsch,	9,960
Onega,	9,552
Arensburg,	9,346
Yenikaly,	4,322
Sevastopol,	858
	(M) 37,328,192

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The commerce of St Petersburgh is carried on chiefly by commission in the hands of factors. This class of merchants, which consists almost entirely of foreigners, forms the most respectable and considerable part of the persons on the exchange. In the year 1790, of the foreign counting houses, not belonging to the guilds, were 28 English, 7 German, 2 Swiss, 4 Danish, several Prussian, 6 Dutch, 4 French, 2 Portuguese, 1 Spanish, and 1 Italian. Besides these, were 12 denominated burghers, and of the first guild 106, with 46 foreign merchants, and 17 belonging to other towns, though several cause themselves to be enrolled in these guilds who are not properly merchants.

The Russian merchants from the interior of the empire repair, at a stated time, to St Petersburgh, where they bargain with the factors for the sale of their commodities. This done, they enter into contracts to deliver the goods according to the particulars therein specified, at which time they commonly receive the half or the whole of the purchase-money, though the goods are not to be delivered till the following spring or summer by the barks then to come down the Ladoga canal. The quality of the goods is then pronounced on by sworn *brackers* or sorters, according to the kinds mentioned in the contract. The articles of importation are either disposed of by the Russian merchants through the resident factors, or the latter deliver them for sale at foreign markets; in both cases the Russian, to whose order they came, receives them on condition of paying for them by instalments of 6, 12, and more months. The Russian merchant, therefore, is paid for his exports beforehand, and buys such as are imported on credit; he risks no damages by sea, and is exempted from the tedious transactions of the custom-house, and of loading and unloading.

The clearance of the ships, the transport of the goods into the government warehouses, the packing and unpacking, unloading and despatching of them,—in a word, the whole of the great bustle attendant on the commerce of a maritime town is principally at Cronstadt, and that part of the residence called Vassiliostrof. Here are the exchange, the custom-house; and in the vicinity of this island, namely, on a small island between that and the Petersburgh island, the hemp warehouses and magazines, in which the riches of so many countries are bartered and kept. In all the other parts of the city, the tumult of business is so rare and imperceptible, that a stranger who should be suddenly conveyed hither, would never imagine that he was in the chief commercial town of the Russian empire. The opulent merchants have their dwellings and counting-houses in the most elegant parts of the town. Their houses, gateways, and court-yards, are not, as in Hamburgh and Riga, blocked up and barricadoed with bales of goods and heaps of timber. Here, besides the counting-house, no trace is seen of mercantile affairs. The business at the custom-house is transacted by one of the clerks, and people who are hired for that purpose, called expeditors; and the labour is performed by artelschiki, or porters belonging to a kind of guild.

The factor delivers the imported goods to the Russian merchant,

(M) To this table of the principal sea-ports of Russia, must now be added the town of Odessa, or New Odessa, which 10 years ago was scarcely known as a place of trade, but is now become a populous and important sea-port. Odessa is situated in the government of Katharinoslaf, on a small gulf of the Black sea, between the rivers Dniepr and Dniestr, 44 miles W. by S. of Otchakof, and nearly 1000 miles S. of St Petersburgh. In 1805, this town contained a population of 10,000 persons, and its population was yearly increasing. The houses are well built of free stone; the streets are wide, and are disposed according to a regular plan, but unpaved. The town is fortified, has a secure and capacious harbour, capable of admitting vessels of considerable burden, and a mole or quay extending above one-fourth of a mile into the sea, susceptible of being converted to the most useful purposes. There are several warehouses for the purpose of depositing bonded goods, at times when the market proves unfavourable. The public markets are well supplied, and there are two good theatres, besides other places of public amusement. The society of this thriving town is rendered extremely gay by the residence of the Polish nobles, who resort to it in great numbers, during the summer, for sea-bathing; and the wise and upright administration of the duke de Richelieu, who was governor in 1805, had added greatly to the prosperity of the place. The merchants are chiefly Germans and Italians, though, at the time we mention, there were established in this port two British houses of respectability. The chief exports from this place are wheat and other grain, with which 1000 ships have been loaded in a single year. Among the natural disadvantages of Odessa, must be noticed the bareness and want of wood in its immediate neighbourhood, and the dangerous navigation of the Black sea, from the currents and want of sea room. In point of commercial importance, Odessa ranks at least on an equal footing with Taganrok. Long. 29° 24′ E. Lat. 46° 28′ N. See *Macgill's Travels in Turkey, Italy, and Russia*, vol. i. p. 257.

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merchant, who sends them off, in the manner already mentioned, or retails them on the spot, in the markets, warehouses, and shops.

There is no exaggeration in affirming, that it would be difficult to point out a people that have more the spirit of trade and mercantile industry than the Russians. Traffic is their darling pursuit; every common Russian, if he can but by any means save a trifling sum of money, as it is very possible for him to do, by his frugal and poor way of living, tries to become a merchant. This career he usually begins as a *rasnoschik* or seller of things about the streets; the profits arising from this ambulatory trade, and his parsimony, soon enable him to hire a *lavka* or shop; where, by lending small sums at large interest, by taking advantage of the course of exchange, and by employing little artifices of trade, he in a short time becomes a pretty substantial man. He now buys and builds houses and shops, which he either lets to others, or furnishes with goods himself, putting in persons to manage them for small wages; begins to launch out into an extensive trade; undertakes podriads, contracts with the crown, deliveries of merchandise, &c. The numerous instances of the rapid success of such people almost exceed all description. By these methods a Russian merchant, named Sava Yacovlof, who died not many years ago, from a hawker of fish about the streets, became a capitalist of several millions of rubles. Many of these favourites of fortune are at first vassals, who obtain passes from their landlords, and with these stroll about the towns, in order to seek a better condition of life, as labourers, bricklayers and carpenters, than they could hope to find at the plough tail in the country. Some of them continue, after fortune has raised them, and even with great riches, still slaves, paying their lord, in proportion to their circumstances, an *olerok*, or yearly tribute. Among the people of this class at St Petersburgh are many who belong to Count Sheremetof, the richest private man in Russia, and pay him annually for their pass above 1000 rubles. It often happens that these merchants, when even in splendid circumstances, still retain their national habit and their long beard; and it is by no means rare to see them driving along the streets of the residence, in this dress, in the most elegant carriages. From all this it is very remarkable, that extremely few Russian houses have succeeded in getting the foreign commission trade; a striking proof that there is *something* besides industry and parsimony requisite to mercantile credit, in which the Russians must have been hitherto deficient.

Those who wish for a more minute account of the arts, manufactures, commerce and trade of the Russian empire, will find ample details on these important subjects, in the third volume of Mr Tooke's *View of the Russian empire, during the reign of Catharine* II. *and to the close of the eighteenth century.*

221 Nations composing the Russian empire.

This vast empire contains within its boundaries, according to Mr Tooke's account, not fewer than 81 distinct nations, differing from each other in their origin, their language, and their manners. Without enumerating all those tribes, the names of many of which are scarcely known to civilized Europe, we shall only particularize the most remarkable. These are the descendants of the ancient Slavi, comprehending the Russians properly so called, and the neighbouring Poles; the Fins, under which denomination we may include the Laplanders, the Esthonians, the Livonians, the Permians, and the Ostiaks; the numerous Tartar hordes that inhabit the southern parts of the empire, comprehending the Mongol Tartars, the Kalmuks, the Derbetans, the Torgots, the Bargaburats; the Khazares, the Kangli or Petchenegans; the Siberian Tartars; the Tartars of the Krimea; the Baschkirs; the Kirgsheses, and the Chevines; the inhabitants of the regions of Mount Caucasus, including the Georgians; the Mandshurs, including the Tunguses, the Samoiedes, the Kamtschadales, and the Kozaks.

Of several of these nations we have already given an account, in the articles Cossacs, Kamtschatka, Lapland, Poland, &c.; and we shall here confine ourselves chiefly to the manners and customs of the Russians, the Fins, the Samoiedes, the Baschkirs, the Kozaks, the inhabitants of the Ukraine, and the Krimean Tartars.

222 General character of the Russians.

The native Russians are of the middle size, of a strong and robust make, and in general extremely hardy. They have usually a small mouth, with thin lips and white teeth; little eyes; a low forehead; the nose frequently small, and turned upwards, and a bushy beard. The expression of their countenance is grave, but good-natured. The gait and gestures of the body have often a peculiar and impassioned vivacity, partaking of a certain *complaisance*, and engaging manner. They are in general capable of bearing fatigue, want of accommodation and repose, better than the inhabitants of any other European nation. Notwithstanding the severity of the climate, their diseases are few, and there are frequent and remarkable instances of longevity.

With respect to general character, all writers allow that they are ignorant, and often brutal, not easily roused to action, and extremely addicted to drunkenness. They are also not remarkable for cleanliness.

Having thus given a general view of the Russian character, we must consider a little more particularly that of the several classes into which they may be divided, and make a few remarks on their manners and customs.

223 Nobility and gentry.

According to Mr Tooke, there is in Russia at present but one order of nobility, though it is not unusual with travellers to mention the higher and lower nobility. The title boyar, so common in the beginning of the 18th century, is now disused; and those of prince, count, and baron, form the principal distinctions. The Russian nobility have always enjoyed certain peculiar rights and privileges, though these have been rather derived from long usage, than sanctioned by any written law. Thus, they can exclusively possess landed estates, though they cannot alienate or sell them. If a nobleman be found guilty of any high crime, he may incur the forfeiture of his estate, his honour, or his life, but he cannot be made a vassal to the crown. The nobility can arbitrarily impose taxes and services on their vassals, and may inflict on them any corporal punishment short of death, and they are not responsible for their vassals. A nobleman cannot be compelled to raise recruits against his will, or to build a magazine or barrack for the crown; his person and landed property are exempted from taxation; he can hold assemblies, set up manufactories, and open mines on his own ground, without paying tribute to the crown. He is, however, bound to personal service in war. The Russian nobility live in great style, and support a considerable establishment of servants. As part of

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of this establishment, they have generally a dwarf and a fool. These dwarfs are the pages and playthings of the great, and, at almost all entertainments, stand for hours at their lord's chair, holding his snuff box, or awaiting his commands.

The tzar Alexei abhorred the personal abasement of the inferior classes to their superiors, which he would not accept when exhibited to himself; and it may appear surprising that Peter I. who despised mere ceremonials, should have encouraged every extravagance of this kind. In a few years of his reign, the beautiful simplicity of designation and address which his father had encouraged was forgotten, and the cumbersome and almost ineffable titles which disgrace the little courts of Germany were crowded into the language of Russia. He enjoined the lowest order of gentlemen to be addressed by the phrase, *your respectable birth;* the next rank, by *your high good birth;* the third, *your excellence;* the fourth, *your high excellence:* then came *your brilliancy*, and *high brilliancy: highness* and *majesty* were reserved for the grand duke and the emperor.

These titles and modes of address were ordered with all the regularity of the manual exercise; and the man who should omit any of them when speaking to his superior, might be lawfully beaten by the offended boyar. Before this period, it was polite and courtly to speak to every man, even the heir apparent, by adding his father's name to his own; and to the grand duke, Paul Petrovitch would have been perfectly respectful, or a single word signifying *dear father*, when he was not named. Though pompous titles were unknown among them before the era of Peter, the subordination of ranks was more complete than in any other European nation; but with this simplicity peculiar to them and the Poles, that they had but three ranks, the sovereign, the noblesse or gentry, and the serfs. It was not till lately that the mercantile rank formed any distinction; and that distinction is no more than the freedom of the person, which was formerly a transferable commodity belonging to the boyar. Notwithstanding this simplicity, which put all gentlemen on a level, the subscription of a person holding an inferior office was not *servant*, but *slave;* and the legal word for a petition in form was *tchelobitii;* which signifies a beating with the forehead, or stirring the ground with the forehead, which was actually done. The father of Alexei abolished the practice; but at this day, when a Russian petitions you, he touches his forehead with his finger; and if he be very earnest, he then puts his finger to the ground.

The Russian nobles formerly wore long beards, and long robes with strait sleeves dangling down to their ancles; their collars and shirts were generally wrought with silk of different colours; in place of hats, they covered their heads with furred caps, and instead of shoes, wore red or yellow leathern buskins. The dress of the women nearly resembled that of the other sex, with this difference, that their garments were looser, their caps fantastical, and their shift sleeves three or four ells in length, gathered up in folds from the shoulder to the fore arm. At present, however, the French fashions prevail among the better sort throughout all Russia.

224 Common people.

The common people are generally tall, healthy, and robust, patient of cold and hunger, inured to hardships, and remarkably capable of bearing the most sudden transition from the extremes of hot or cold weather. Nothing is more customary than to see a Russian, who is overheated and sweating at every pore, strip himself naked, and plunge into a river; nay, when their pores are all opened in the hot bath, to which they have daily recourse, they either practise this immersion, or subject themselves to a discharge of some pailfuls of cold water. This is the custom of both men and women, who enter the baths promiscuously, and appear naked to each other, without scruple or hesitation.

A Russian will subsist for many days on a little oatmeal and water, and even raw roots; an onion is a regale; but the food they generally use in their journeys is a kind of rye-bread, cut into small square pieces, and dried again in the oven. These, when they are hungry, they soak in water, and eat as a very comfortable repast. Both sexes are remarkably healthful and robust, and accustom themselves to sleep every day after dinner.

The Russian women are remarkably fair, comely, strong, and well-shaped, obedient to their lordly husbands, and patient under discipline; they are even said to be fond of correction, which they consider as an infallible mark of their husbands' conjugal affection; and they pout and pine if it is withheld, as if they thought themselves treated with contempt and disregard. Of this neglect, however, they have very little cause to complain; the Russian husband being very well disposed, by nature and inebriation, to exert his arbitrary power.

Such is the slavery in which the Russians of both sexes are kept by their parents, their patrons, and the emperor, that they are not allowed to dispute any match that may be provided for them by these directors, however disagreeable or odious it may be. Officers of the greatest rank in the army, both natives and foreigners, have been saddled with wives by the sovereign in this arbitrary manner. A great general some time ago deceased, who was a native of Britain, having been pressed by Elizabeth to marry one of her ladies, saved himself from a very disagreeable marriage, only by pleading the badness of his constitution.

225 Authority of parents over their children.

In Russia, the authority of parents over their children is almost as great as it was among the ancient Romans, and is often exercised with equal severity. Should a father, in punishing his son for a fault, be the immediate cause of his death, he could not be called to account for his conduct; he would have done nothing but what the law authorized him to do. Nor does this legal tyranny cease with the maturity of children; it continues while they remain in their father's family, and is often exerted in the most indecent manner. It was not uncommon, even in St Petersburgh, to see a lady of the highest rank, and in all the pomp and pride of youthful beauty, standing in the court-yard with her back bare, exposed to the whip of her father's servants. And so little disgrace is attached to this punishment, that the same lady would sit down at table with her father and his guests immediately after she had suffered her flogging, provided its severity had not confined her to bed.

226 Their superstitions.

In superstitious notions and practices, the common Russians are by no means behind their neighbours. Most of them believe in ghosts, apparitions, and hobgoblins; and few of them are fond of inhabiting the houses of near relatives deceased. Hence it happens that many houses are left to fall into ruins, or sold to

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strangers at a very cheap rate. Even a house whose owner has fallen into poverty, or has otherwise become unfortunate, will not easily find a purchaser, because it has ejected its master. On the Thursday before Whitsuntide, the young women celebrate the festival of the Slavonian goddess Lada, and her son Dida, with singing and dancing; and at this time they decorate a birch bush with garlands and ribbons, and then throwing it with great solemnity into a river, predict from the figures the ribbons assume in the current, whom they shall wed, and what shall be their fate in marriage. On the 5th of January they go by night into a cross street or a cellar, and fancy they hear in every sound the prediction of their destiny. This is called *sluschit*, to go a hearing. The day after Christmas is solemnized by the midwives, because the Virgin Mary's midwife was materially concerned in the redemption of the world. In many places they believe that some witches, by their incantations, have the power of depriving the female sex of their privilege of becoming mothers, but that others can preserve it inviolable; of course brides always apply to the latter. Their *domovois* are our fairies, and their *vodovois* our water goblins, or wizards of the stream.

227 Diet.

The enjoyment of the table is carried to greater excess in Russia than in almost any other country. What has a very curious appearance to a foreigner is, that in summer a course of hot meats, and another of iced meats of the same kind, are very commonly served up together. Their cookery is in general commendable, but their cooks are chiefly from foreign countries. It is usual before dinner to take, in the drawing-room, a repast consisting of savory meats, accompanied with wines and cordials; and at these repasts it is not unusual for some of the party to forget they have to dine afterwards; nor is it thought any thing remarkable to see a person enter the dining-room in a state of intoxication.

A Russian dinner among the politer classes, is thus described by Sir John Carr. It is seldom later than three o'clock. Upon a side board in the drawing-room is always placed a table filled with fish, meats, and sausages, salted, pickled, and smoked; bread and butter, and liqueurs. These airy nothings are mere running footmen of the dinner, which is in the following order:—A cold dish, generally of sturgeon or some other fish, precedes, followed by soup, a number of made dishes, a profusion of roasted and boiled meats, among which the Ukraine beef is distinguishable, and abundance of excellent vegetables; then pastry and a dessert of very fine melons, and sour flavourless wall fruit. The table is covered with a variety of wines, and excellent ale or beer. The master of the house, or the cook, carves; and slices of every dish are handed round to the guests. Among the most gratifying dishes in summer, is a large vase of ice broken into small pieces, with which the guests cool their wine and beer. In the yard of every Russian house, there are two large cellars, one warm for winter, and the other filled with ice for the summer. The soup, and coffee, and chocolate, are frequently iced. After a few glasses of delicious wines, the lady of the house usually rises, and the company retires to coffee in the drawing-room.

Their common drink is called *quash*, and is made by pouring hot water upon rye bread. This is left to ferment, and soon produces a drink, which, though at first disagreeable, becomes afterwards sufficiently grateful to the palate. Mead is also a common beverage; but the native malt liquors are very bad. The Russians consume a great quantity of tea, and are said by Mr Macgill to have the best which is drunk in Europe. This is called the *flower of tea*, and is brought over land by the Chinese merchants who come to the Russian fairs, and exchange their tea for other articles used in their country.

228 Amusements.

The amusements of the native Russians consist principally of singing, dancing, drafts, and some other games; foot-ball, and more especially swinging. The swing is everywhere, and at all times, used as an amusement by persons of rank and condition; but at Easter it is the grand diversion of the holidays. The swings may be divided into three sorts; some have a vibrating motion, and these are the most common, well known in Germany and Britain; others are turned round in a perpendicular, and others again in a horizontal direction. The first of these latter species consists of two high posts, on the top of which rests an axle, having two pairs of poles fixed in its centre. Each of these pairs of poles has at its two extremities a seat suspended from a moveable axis. The proprietor, by turning the axis that rests on the two posts, makes all the eight seats go round in a perpendicular circle, so that they alternately almost touch the ground, and then are mounted aloft in the air. The last kind is composed of chairs, chariots, sledges, wooden horses, swans, goats, &c. fastened at the extremities of long poles, and forced rapidly round in a horizontal circle. In the Easter holidays all kinds of machines are set up in the public squares; and as the common people are remarkably fond of the diversion, it is a joyful season to the populace, who then devote themselves without restraint to their national propensity to mirth. The numerous concourse of persons of all ranks and descriptions, who parade in a circle with their elegant and sumptuous equipages, the honest merriment of the crowd, the hearty participation with which they enter into these amusements, the striking and singular appearances of the exhibition itself, give this popular festivity a character so peculiar, that the man of observation, who will take pains to study the nation even on this humorous stage, may catch very powerful strokes of the pencil for his delineation. He will not fail to discern the general gaiety with which old and young, children and graybeards, are possessed, and which is here not kindled for a transient moment, but is supported by every pleasant occasion, and placed in its most agreeable light. He will remark the spirit of urbanity and gallantry, appearing in a thousand little ways, as by no means an indifferent feature in the national character. Here a couple of beggars with their clothes in tatters, are saluting one another in the most decent and respectful manner; a long string of questions about their welfare opens the dialogue, which likewise concludes with a polite embrace. Yonder a young fellow is offering to hand his girl, whose cheeks are glowing with paint and brandy, into a seat in which they are both presently to be canted up in the air; and even in those lofty regions his tenderness never forsakes him. Only one step farther, and the eye is attracted by different scenes. The same people who were but now greeting each other in friendly terms, are engaged in a violent quarrel, exhausting the enormous store of abusive epithets with which the Russian tongue abounds. All that can degrade

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grade and exasperate a human being finds its expression in this energetic language; yet with this vehemence of speech they never lose their temper.

While they are making the most furious gestures, straining their throats to the utmost pitch, loading one another with the most liberal profusion of insults, there is not the least danger that they should proceed to blows. The police, well knowing that with all this noise no lives will be lost, cools the heated parties by a plentiful shower from the fire engine, kept on the spot for that purpose, and which is found to be of such excellent service, that one of them is always at hand wherever a concourse of people is expected. Now, all at once the strife is over, the two vagabonds are running arm in arm to the nearest post house, to ratify their renovated friendship over a glass of brandy.

In the vicinity of the swings, booths are usually run up with boards, in which low comedies are performed. Each representation lasts about half an hour, and the price of admittance is very trifling; but as the confluence of the people is extremely great, and the acting goes on the whole day, the profits are always considerable both to the managers and to the performers, who share the amount between them.

229 Modes of coveyance.

The principal modes of conveyance in Russia, are by means of sledges and drojekas. The latter carriage is, we believe, peculiar to Russia, and is employed in the large towns like our hackney coaches. It is described by Mr Porter as a sort of parallelogram with four leathern wings projecting at no great distance from its body, and passing in a semicircular line towards the ground. It runs on four low wheels, and is generally furnished with two seats, placed in such a manner, that two persons can sit sideways, but with their backs to each other. In some of these carriages the seat is so formed, that the occupier sits as on a saddle, and for his better security holds by the driver's sash.

230 Music and dancing.

The Russians are fond of the bagpipe, and have a kind of violin, with a large belly like that of a lute; but their music is very barbarous and defective. Yet there are public schools in which the children are taught to sing. The very beggars ask alms in a whining cadence, and ridiculous sort of recitative. A Russian ambassador at the Hague, having been regaled with the best concert of vocal and instrumental music that could be procured, was asked how he liked the entertainment: he replied, Perfectly well; the beggars in my country sing just in the same manner. The warlike music of the Russians consists in kettledrums and trumpets; they likewise use hunting horns; but they are not at all expert in the performance. It has been said, that the Russians think it beneath them to dance, which may have been the case formerly; but at Petersburgh dancing is at present much relished, and a minuet is nowhere so gracefully performed in Europe as by the fashionable people in that metropolis.

231 Finns.

The Finns are rather of a short stature, have a flat face with sunk cheeks, dark gray eyes, a thin beard, tawny hair, and a sallow complexion. They are all of a strong make, and were it not for their excessive propensity to drinking spirituous liquors, would be remarkably healthy. They are universally great eaters, and in spite of their strong passion for brandy, not unfrequently attain to a very advanced age. Their dress consists of woollen kaftans, worn short to the knee, with loose black pantaloons and boots. Now and then, by way of extraordinary finery, a sort of embroidered decoration adorns their upper garments. Their caps are unvaryingly of the same shape, round, with a broad rim turned up on all sides round the crown.

Mr Acerbi has given the following characteristic account of the Finnish peasants.

"The very beggars in other countries live in ease, and even luxury," says Mr Acerbi "compared to the peasantry of the north; but the northern peasantry are a far happier, and far more respectable race, than the poor of more civilized countries; they are industrious, and their industry can always procure enough to support life with comfort: that abject degree of poverty is not known there, which destroys industry by destroying hope. They have a curious mode of fishing: when the fisherman observes a fish under the ice, in shallow water, he strikes the ice forcibly, immediately over the fish, with a club, and the fish, stupefied by the blow, rises to the surface. They use a spear to kill the bear, or, as they call him, the old man in the pelice: a cross bar is fixed about a foot from the point of the spear, as otherwise the bear might fall upon the spearsman: the beast, feeling himself wounded, holds the spear fast, and presses it more deeply into the wound. The proverbs of the Finlanders bear testimony to their industry and hospitality."

232 Finnish poetry.

Their poetry is alliterative, without rhyme. The specimens translated by Mr Acerbi are very interesting. The following was composed by a Finnish peasant upon his brother's death.

"The word went forth from heaven, from Him in whose hands are all things. Come hither, I will make thee my friend; approach, for thou shalt henceforth be my champion. Come down from the high hill: leave the seat of sorrow behind thee; enough hast thou suffered; the tears thou hast shed are sufficient; thou hast felt pain and disease; the hour of thy deliverance is come; thou art set free from evil days; peace hasteneth to meet thee, relief from grief to come.

"Thus went he out to his Maker: he entered into glory; he hastened to extreme bliss; he departed to enjoy liberty; he quitted a life of sorrow; he left the habitations of the earth."

The Finns have many Runic verses which are supposed to contain healing powers, and these are styled *sanat*, or charms; as *mandansanat*, charms for the bite of a serpent; *tulensanat*, charms to cure scalds or burns; *raudansanat*, charms to heal wounds, &c.

"These charms are very numerous, and though not much esteemed by the inhabitants of the sea-coast, are in the highest repute amongst those who dwell in the interior and mountainous parts of the country. This is likely to continue to be the case as long as the practice of physic remains in the hands of itinerant empirics and ignorant old women. They jointly with charms use some simple remedies, as salt, milk, brandy, lard, &c. but attribute the cures they perform to the superior efficacy of the verses they sing during the application; the chief theory and foundation of their practice consisting in a belief with which too they impress their patients very strongly, that their complaints are occasioned by witchcraft, and can only be removed by means of these incantations.

"Of these charms it is not easy to obtain specimens, as

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as they who are versed in them are unwilling to communicate them to literary men, especially when they see them prepare to commit them to writing, as they fear to be reported to the magistrate or clergyman, and punished, or at least chided, for their superstition. It is a pity the clergymen will not be at the pains of discriminating betwixt the verses which are the production of superstition, and those of an innocent nature. So far are they from attending to this particular, that they do their utmost to discourage Runic poetry in general, and without exception; which, partly on that account, and more owing to the natural changes which time brings about in all human affairs, is rapidly falling into disuse, and in a few years will be found only in the relations of travellers." *

* *Acerbi's Travels.*

233 Samoiedes.

The Samoiedes are shorter and thicker than the Laplanders; in other respects they resemble them very much. They have little hair, and cover their heads with a fur cap. Their skin coat reaches to their knees, and is fastened round the waist with a girdle. They have breeches, shoes, and stockings, made of the same materials as their coats. Over their shoulders they throw a black bear's skin, with the feet hanging at the four corners. This cloak is placed obliquely on the left side, that the right arm may be more at liberty to use their bows and arrows. On their feet they wear a kind of skates two feet long, with which they slide with prodigious swiftness over the frozen snow, that incessantly covers their mountains.

The women are capable of enduring great fatigue, and assiduously breed up their children in the use of the bow, which they handle with great dexterity. They are dressed nearly like the men, except about the head. A lock of twisted hair hangs down to their shoulders, at the extremity of which is a knot formed of a long slip of bark, which reaches to their heels. In this consists their finery. They hunt with their husbands, and are equally expert in the use of their weapons. Conjugal fidelity is strictly observed, and the punishment annexed to a violation of it on either side is death.

The Samoiedes have no knowledge of the Supreme Being; they use, as idols, the heads of beasts of prey, particularly those of bears, which they put up in the woods, and fervently worship. Their priests, whom they call Shamanns, are chosen from among such as are advanced in years; and they imagine that these can reveal to them the will of their gods, foretel future events, and perform all kinds of magical operations.

Samoiedes, in the Russian language, signifies man-eaters, a term which denotes the barbarity of the people; but there is no good reason for believing that the term can be applied to them in its worst acceptation. They probably derived the name from the custom they have of eating their meat without dressing, and not from the habit of devouring their deceased friends or prisoners, of which they have been accused.

The Samoiedes, like the Laplanders, live in tents or caverns, according to the season of the year. Like the Ostiaks and Tungusians, they are exceedingly dirty in their persons and habits. Their marriages are attended with no other ceremony than a verbal agreement. They call their new-born children by the name of the first animal they meet; or if they happen to meet a relation, he generally names the child. Their priests use a tabor, or an instrument very much like it, either to make their conjurations, or to assist them in those arts by which they delude their countrymen.

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234 Baschkirs.

The Baschkirs form one of the military hordes of wandering Tartars, which formerly roamed about the southern part of Siberia, under the conduct of their chiefs, and subsisted principally by plunder. They now constitute a part of the irregular troops of the Russian empire, and have taken up their residence among the Ural mountains, extending to the Tartar deserts on the borders of the rivers Oby and Tobol. In the year 1770, they consisted of about 27,000 families.

Every tribe of the Baschkirs chooses its own ruler, who is called *starchirsis*. The huts which they inhabit during winter are built in the fashion of those in the Russian villages, having a chimney of a conical form of about five feet high in the middle of the principal apartment, which is furnished with large benches, used either as seats or couches. The house is usually filled with smoke, and in its whole economy seems very much to resemble an Irish cabin. In summer the Baschkirs inhabit tents covered with felt, and furnished like the huts with divisions and a chimney in the centre. A summer encampment never exceeds 20 tents, but a winter village contains from 10 to 50 huts.

The most opulent of these tribes are those which dwell on the east of the Ural chain. Some individuals of this nation possess not fewer than 4000 horses, who fatten on the richest pastures in the valley till the month of June, when they are compelled by wasps and other insects to seek for shelter in the mountains. The principal wealth of this people consists of their flocks and herds; but it is chiefly from their horses they derive the necessaries of life, milk, meat, vessels, and garments. They have some knowledge of tillage; but as they sow but little grain, their harvests are very inadequate to their wants; and in general they prefer a pastoral life. Much of their traffic consists of honey. They apply with great success to the cultivation of bees, making their hives in hollow trees, as a greater protection from accidents and wild animals. Frequently one man is the possessor of 500 or 600 of these industrious commonwealths.

The women employ themselves in weaving, dyeing and fulling their narrow coarse cloths, and they also make the clothes of the whole family, while the men of the lower classes follow the more laborious occupation of fabricating felts, and tanning leather. Both sexes use linen spun from the down of nettles, of which they make wide drawers descending to the ancles. On their feet they wear the usual eastern slipper, and by way of outer garment, a long gown, generally of a red colour, bordered with fur, and fastened round the waist with a girdle, in which is hung the dagger or scymiter. The lower ranks in winter wear a pelice of sheep skin, while the higher orders wear a horse's skin, in such a manner that the mane flows down their backs, and waves in the wind. The head is covered with a conical cloth cap, sometimes ornamented with fur, and sometimes plain. The garments of the women, among the superior classes, are of silk, buttoned before as high as the neck, and fastened by a broad steel girdle. Round their bosoms and throats they wear a shawl hung with strings of beads, shells, and coins.

Their diversions are confined to religious ceremonies and a few peculiar festivals, and consist of singing, dancing,

cing, and horse racing. In their songs they enumerate the achievements of their ancestors, or of themselves, and sometimes alternate these epic poems with love ditties. These songs are always accompanied with appropriate gestures. In their dances they make strange gesticulations, but the motion of the feet is very gentle; and the women, while using these, hold a long silk handkerchief in their hand, which they wave about in a wanton manner.

In their entertainments, the aged occupy seats of honour; and when strangers are introduced, these are placed next the old men. The language of the Baschkirs is a Tartar dialect, but different from that which is spoken in the district of Kazan. Their religion is Mahometan, and they are much addicted to all the superstitions of the east.

The Baschkir soldiers are dexterous horsemen, and skilful in managing the bow. They are usually cased in shirts of mail, with shining helmets. Their ordinary weapons are a sword, a short bow, and a quiver containing 24 arrows. They also carry a long pike, adorned at the top with various coloured pendants. Their horses are small, and though hardy and active, are not at all superior in point of appearance to those of the Kozaks.

The leaders of the Baschkirs have a very superb and warlike appearance. They wear a shirt of mail and a steel helmet like the common men, but over the shirt is thrown a scarlet kaftan flowing from the shoulders down over the backs of their horses. They also wear large scarlet trowsers, and large boots of yellow leather. The saddle covering of the horses usually consists of a leopard's skin. See *Porter's Travels*, vol. ii. Plate at p. 59.

235 Don Kozaks.

Under the article Cossacs, we have enumerated the several tribes of these people, and have made some remarks on their manners and customs; but as the Don Kozaks form a considerable part of the Russian armies, we shall here add a few remarks on these people, considered in a military capacity.

The common men among these troops have no pay, even in time of war, and their officers have but a very moderate allowance. They are obliged to provide themselves with horses, arms and clothing. Nothing is furnished them except oatmeal and flour. Frequently even nothing is given them but a sorry biscuit (*sukare*). Thence those hideous tatters with which most of them are covered, when they have no opportunity of plundering, and which give them the appearance of beggars and robbers; thence the ruinous condition of their arms, and the bad state of their horses; thence the murders, robberies, fires, and rapine which every where mark their passage, and which, doubtless, would not be so frequent, if government, less avaricious and less cruel, provided them with even the bare necessaries of life.

They are armed with a pike from 15 to 18 feet in length, which they hold vertically, resting on the right stirrup, and which they couch at the moment of attack. The Kozak makes a very dexterous use of this pike for leaping on his horse. With the left hand he grasps the mane, and as soon as he has his foot in the stirrup, instead of placing his right hand on the crupper, as is generally done, the pike which he holds serves him as a prop; he makes a spring, and, in the twinkling of an eye, he is in the saddle. The Kozaks have no spurs; a large whip suspended from the left wrist supplying their place. Besides their pike, they commonly have a bad sabre, which they neither like, nor well know how to make use of; one or two pistols in a bad condition, and a carbine which they seldom employ.

Their horses are small, lean and stiff, by no means capable of a great effort, but indefatigable. Bred in the *steppes*, they are insensible to the inclemency of the season; accustomed to endure hunger and thirst; in a word, not unlike their masters. A Kozak will seldom venture to expose himself against a Turk or a Tartar, of whom he commonly has neither the address nor the vigour: besides, his horse is neither sufficiently supple, nor swift, nor sure-footed; but in the end his obstinate perseverance will tire the most active horseman, and harass the most frisky steed, especially if it be in a large plain, after a defeat. All the Kozaks, however, are not badly armed and ill mounted. Several of them keep the arms and horses which they may have been able to obtain by conquest in a campaign; but, in general, they had rather sell them, preferring their patient ponies and their light pikes. As for their officers, they are almost all well mounted, and many of them have good and magnificent arms, resembling in that respect the Turks and Poles.

The Kozaks, if we except the Tschugnief brigade, never fight in a line. They are scattered by platoons, at the head, on the flanks, and in the rear of the army, sometimes at considerable distances. They do the duty of advanced guards, videttes, and patroles. Their activity and vigilance are incredible. They creep and ferret every where with a boldness and address of which none but those who have seen them can obtain an idea. Their numerous swarms form, as it were, an atmosphere round the camps and armies on a march, which they secure from all surprise, and from every unforeseen attack. Nothing escapes their piercing and experienced eye; they divine, as if by instinct, the places fit for ambuscades; they read on the trodden grass the number of men and horses that have passed; and from the traces, more or less recent, they know how to calculate the time of their passing. A bloodhound follows not better the scent of his game. In the immense plains from Azof to the Danube, in those monotonous solitudes covered with tufted and waving grass, where the eye meets with no tree, no object that can obstruct it, and whose melancholy uniformity is only now and then interrupted by infectious bogs and quagmires, torrents overgrown with briars, and insulated hillocks, the ancient graves of unknown generations: in those deserts, in short, the roaming Kozak never misses his way. By night, the stars direct his solitary course. If the sky is clear, he alights from his horse at the first *kurgan* that chance throws in his way; through a long habit of exercising his sight in the dark, or even by the help of feeling alone, he distinguishes the herbs and plants which thrive best on the declivity of the hillock exposed to the north or to the south. He repeats this examination as frequently as the opportunity offers, and, in this manner, he follows or finds again the direction which he ought to take for regaining his camp, his troop, or his dwelling, or any other place to which he is bound. By day, the sun is his surest guide; the breath of the winds, of which he knows the periodical course, (it being pretty regular in these countries), likewise serves him as a compass to steer by.

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by. As a new species of augury, the Kozak not unwillingly interrogates the birds; their number, their species, their flight, their cry, indicate to him the proximity of a spring, a rivulet, or a pool; a habitation, a herd, or an army. Those clouds of Kozaks which encompass the Russian armies for the safety of their encampments, or of their marches, are not less formidable to the enemy. Their resistless vigilance, their rash curiosity, their sudden attacks, alarm him, harass him incessantly, and incessantly watch and controul his motions. In general action, the Kozaks commonly keep at a distance, and are spectators of the battle; they wait for its issue, in order to take to flight, or to set out in pursuit of the vanquished, among whom their long pike makes a great slaughter. †

† *Secret Memoirs of the court of Petersburgh*, vol. iii.

236 Kozaks of the Ukraine.

To the account, given under Cossacs, of the inhabitants of the Ukraine, we may add the following particulars, which, though anonymous, appear to be accurately stated.

When a young woman, in the Ukraine, feels a tender passion for a young man, she goes to his parents, and says to him, "*Pomagac-bog*," (be you blessed of God). She then sits down, and addressing herself to the object of her affection, makes her declaration of love in the following terms: "Ivan, (Theodore or whatever else may be his name) the goodness I see written in your countenance, is a sufficient assurance to me, that you are capable of ruling and loving a wife; and your excellent qualities encourage me to hope, that you will make a good *gospodar* (husband or master). It is in this belief, that I have taken the resolution to come and beg you, with all due humility, to accept me for your spouse." She afterwards addresses the father and mother in words to the same effect; and solicits them earnestly to consent to the marriage. If she meets with a refusal, or apology, she answers, that she will not quit the house, till she shall have married the object of her love. Sometimes the parents persist in their refusal; but if the girl be obstinate, and have patience to stay a few days or weeks in the house, they are not only forced to give their consent, but frequently to persuade their son to marry her. Besides, the young man is generally moved by her perseverance and affection, and gradually accustoms himself to the idea of making her his wife; so that the young female peasants of the Ukraine seldom fail of being provided with a husband to their mind, if they do but possess a tolerable share of constancy. There is no fear of their being obliged to leave the house of the youth whom they prefer; the parents never think of employing force, because they believe, that by so doing, they should draw down the vengeance of heaven upon their heads; and to this consideration is added, the fear of offending the girl's family, who would not fail to resent such behaviour as a grievous affront.

It sometimes happens, that the lord of a village in the Ukraine, gives the peasants a dance before his door, and joins in it himself, with his wives and children. (Let it be observed, that most of the villages in the Ukraine are surrounded with thick woods, in which the peasantry conceal themselves in the summer, when afraid of a visit from the Tartars). Although the peasants are *serfs*, they have possessed, from time immemorial, the right of carrying off any young woman they like from the dance, not excepting even the daughters of their lords, provided they do it with sufficient dexterity; for otherwise their lives pay the forfeit of their temerity. On these occasions they watch an opportunity of seizing their prey, and hasten to conceal themselves in the thickest parts of the neighbouring woods. If they can find means to stay there 24 hours undiscovered, the rape remains unpunished, and they are at liberty to marry the young woman, provided she consents; but if taken before that time expires, they are beheaded without farther ceremony.

On Easter Monday, early in the morning, the young men assemble in the streets, lay hold of all the young girls they meet with, and pour five or six buckets of water on their heads. This sport is not permitted later than 12 o'clock. The day after, the girls take their revenge; but as they are inferior in strength, they are forced to have recourse to stratagem. They hide themselves five or six in a house, with each a jug of water in her hand, a little girl standing sentry, and giving the signal when she sees a young man approach. In an instant the others rush out; surround him with loud acclamations; two or three of the strongest lay hold of him; the neighbouring detachments arrive, and the poor devil is almost drowned with the torrents of water that are poured upon his head.

The men have also another amusement on Easter Monday. They meet in the morning, and go in a body to the lord of the manor, to whom they make a present of fowls, and other poultry. The lord, in return, knocks out the head of a cask of brandy, places it in the court-yard, and ranges the peasants around. He then takes a large ladle, fills it, and drinks to the eldest of the company, who pledges him; and thus it passes from hand to hand, and from mouth to mouth, till the cask is empty. If this happens at an early hour, the lord sends for another, which is treated in the same way; for he is bound to entertain the peasants till sunset. But as soon as the sun sinks beneath the horizon, the signal of retreat is given; and those who are able walk away. The rest pass the night in the open air; and in this manner, some have been known to sleep for upwards of 24 hours. †

† *Monthly Magazine*, vol. iii. p. 441.

237 Tartars of the Krimea.

We have already given a general account of the Krimea and its inhabitants. See Crimea (o). We shall here

(o) The isthmus by which the peninsula of the Krimea is connected with the main land, is commanded by a fortress called by the Russians Perekop, i. e. an entrenchment of the isthmus, and by the Tartars, Or-Kapi, the gate of the fortification. As this fortress has been mentioned only in a cursory manner, in our article Crimea; and as, from its commanding the entrance into the Krimea from the main land, it is a place of great importance, we shall here give some account of it from the travels of Professor Pallas.

The only entrance into the Krimea by land is over a bridge, and through an arched stone gate, both erected at the side of the fortress. Contiguous to the gate, in an eastern direction, and within the precincts of the fosse, is the fortress of Perekop. This is a model of irregular fortification, which, together with the walls of the deep ditch, is

Russia. here add some interesting particulars respecting the Krimean Tartars, from Professor Pallas.

The Krimea is inhabited by three classes of Tartars. The first of these are called Nagays, and are a remnant of that numerous horde which was lately distinguished by the name of Kubanian Tartars, as they formerly occupied the district of Kuban, to the east of the sea of Azof. These Nagays, like their kinsmen in the neighbourhood of Mouut Caucasus, live in small huts constructed of felt, the largest of which are from 4 to 5½ archines in diameter, and cannot be taken to pieces, but are placed by two men on carriages, and thus removed from one place to another. They have a vent hole for an outlet to the smoke; and to this is applied a cover with a handle, from which a line is suspended, for the purpose of occasionally closing and opening the aperture. Mats of reeds and wooden work, much withered and smoked, are employed to line the sides of the huts; for as these tribes are destitute of timber, they are obliged to purchase it from Taurida at a considerable expense.

The dress of the men consists of sheep skins, and a coarse kind of cloth, with small round caps, made of lamb skins, and reaching no lower than the ears. The women are dressed in close vests, over which is worn a loose flowing gown with hanging sleeves. The girls generally wear Circassian caps; and married women have their heads covered with a veil. To their shoes are sometimes attached cross pieces, so as to raise them considerably from the ground.

In conformity with the usage of all Asiatic nations, a *kalim* or marriage portion, consisting, among the opulent, of 40 mares, two horses completely caparisoned, a suit of armour, a gun, and a sabre, is delivered up to the father of the bride on the celebration of the nuptials. The language of the Nagays is said to vary in many respects from that spoken in Taurida; which latter is a Turkish dialect. These people possess more activity and vivacity than the inhabitants of Taurida; but they are also more rapacious and ungovernable, and retain a strong predilection for a wandering life. In summer they travel with their flocks along the banks of the rivulets, where they sow wheat and millet in remote places, and neglect all further cultivation till the time of harvest. On the return of winter they again approach the sea of Azof, near which they find grass preserved for forage, and perhaps a remaining supply of that hay which they had formerly made in the valleys. Russia.

The features of these people show them to be the unmixed descendants of the Mongolian Tartars, who formed the bulk of the army of Tschinghis-khan, which invaded Russia and the Krimea.

The second class of the Krimean inhabitants consists of those Tartars who inhabit the heaths or steppes, as far as the mountains, especially on the north side, and who in the district of Perekop, where they are still unmixed, retain many traces of the Mongolian countenance, with a thinly scattered beard. They devote themselves to the rearing of cattle, to a greater extent than the mountaineers, but are at the same time husbandmen, though they pay no attention to gardening. In

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is constructed entirely of freestone. It forms an oblong square, extending along the trench which terminates the line of defence. On the side adjoining this line, there are no outworks; but on the other three sides, the fort is strengthened by an additional deep fosse, the whole amounting to 158 fathoms in length, and 85 in breadth, computing from the fosse of the line. At the north-western angle there is a pentagonal bastion, serving as an outwork; another of a hexagonal form on the south-west, and a third with two angles at the south-east; but at the north-eastern angle the hexagonal bastion is farther extended into the fosse, so as to cover a narrow passage leading to a deep and excellent spring, that rises between this ditch and the interior fortification. The chief entrance into the fortress is near the southern curtain, on the side of which a projecting demibastion has been erected; but another outlet has been contrived at the eastern extremity.

The houses of the suburbs of Perekop were formerly dispersed in a very irregular manner on the southern side of the fortress: but they are at present situated at a distance of three versts within the country. In the vicinity of the gate, however, there are only a few houses, partly within and partly without the line, inhabited by Russian officers appointed at the salt magazine, or by those belonging to the garrison. Since the year 1797, the garrison of Perekop has been considerably increased.

Although the Krimea is at present united to Russia, Perekop will, on many accounts, always remain a post of the greatest consequence; in some respects to Russia, and in others to the Krimea. If, for instance, the plague should ever spread its baneful influence into Krim-Tartary, (an event which the constant trade carried on with Constantinople and Anatolia may easily produce), or, if seditious commotions should arise among the Tartars, whose loyalty is still doubtful; in these cases Perekop would effectually secure the empire, by closely shutting the barrier. On the other hand, this fortress not only renders every attempt at desertions from the Krimea into Russia very difficult; but if, in future, the project of opening free ports should be realized, and thus the important commerce from the Black sea to the Mediterranean and to Anatolia, be vigorously promoted, Perekop would then afford the most convenient situation for a custom-house. Farther, if the best ports of the Krimea were appointed, in the same manner as those of Toulon and Marseilles have been selected for all the southern parts of France, in order to establish places of quarantine for all ships navigating the Black sea and that of Azof, so that all vessels destined for Taganrok, Kherson, and Odessa, should be obliged to perform a certain quarantine at Sevastopol, Theodosia, and Kertsk, as has already been twice proposed; the important pass of Perekop would for ever secure the open and more populous provinces of the interior parts of the empire from that terrible scourge, the plague. Thus, all danger might be obviated, not only from the sea of Azof, the coasts of which are in every direction exposed to the contagion, so that they can with difficulty be protected; but also from the ports of Kherson, Nicolaef, and Odessa. At the same time, the expense of maintaining various places for quarantines might be greatly reduced, and complete institutions of this nature be speedily established. See *Pallas's Travels*, vol. ii. p. 5.

Russia. In situations destitute of stone, they build with unbaked bricks of clay, and make use of dry dung as fuel. Of this they prepare large quantities, and pile it up into stacks like peat or turf, to serve them during winter. Nearer to the mountains, these Tartars, as well as the nobles, are more intermixed with the Turkish race, and exhibit few of the Kalmuk Mongolian features. This is particularly the case with the Krimean nobility, in whom these peculiarities of feature are almost entirely obliterated. See Pallas's Travels, vol. ii. Plate 21.

The third class of Krimean Tartars comprehends the inhabitants of the southern valleys, a mixed race, which seems to have originated from the remnants of various nations crowded together in these regions at the conquest of the Krimea by the armies of the Mongolian leaders. These people generally display a very singular countenance, having a stronger beard, but lighter hair, than the other Tartars, by whom they are not considered as true descendants of the Tartar race, but are distinguished by the contemptuous name of Tat (or renegado.) By their costume, they are remarkably distinguished from the second class, or heath Tartars; the men among these latter wearing outer garments, very like the loose coats or jackets worn by the European peasants, with round close caps; while the Tartars of the valleys wear the usual eastern dress, with turbans. The dress and veils of the women are, however, alike in both classes. See Pallas's *Travels*, vol. ii. Plates 12. 20, and 22. Their houses or huts are partly under ground, being generally constructed against the steep precipices of mountains, with one half excavated from the earth or rock, and only the front raised with rough stones. They have also a flat roof covered with earth.

There are among these people skilful vinedressers and gardeners; but they are too indolent to undertake new plantations, and avail themselves only of those trees which have been left by their predecessors. They also cultivate flax and tobacco; objects of culture which are unknown to the Tartars of the heaths.

In the costume of the Tartars inhabiting the plains, there is some variety. Young persons, especially those of noble or wealthy families, dress nearly in the Circassian, Polish, or Kozak fashion, with short or slit sleeves in the upper garment. The nobility of more advanced age wear unslit sleeves, like the common Tartars; and old men suffer the whole beard to grow, whereas the young and middle-aged wear only whiskers. Their legs and feet are dressed in half-boots of Morocco or other leather, or they use stockings of the same material, especially in the towns; and over these are worn slippers or clogs, and, in dirty weather, a sort of stilt-shoes, like those described in the dress of the Nagays. Their heads are either entirely shaved, or have the hair cut very short; and they wear a high cap, generally green, edged with black or gray lambskin, and quilted at the top with cotton. This cap is never moved by way of compliment. Those who have performed their pilgrimage to Mecca, are distinguished by a white handkerchief round the edge of the cap, this being the mark of a *hadshi* or pilgrim.

The physiognomy of the true Tauridan Tartars bears a great resemblance to that of the Turks, and of most Europeans. There are handsome, tall, robust people among them, and few are inclined to corpulency; their complexion is rather fair, and their hair black or dark brown.

The dress of the Tartar women of these two latter classes is very different from that of the Nagays. They are in general of low stature, owing probably to the state of confinement in which they are kept during the early part of their lives, though their features are tolerably handsome. Young women wear wide drawers, a shift reaching to their ancles, open before, and drawn together at the neck; a gown of striped silk, with long sleeves, and adorned with broad trimmings embroidered with gold. They have also an upper garment of some appropriate colour, with short thick Turkish sleeves edged with gold lace, ermine, or other fur. Both girls and married women fasten their gowns with a heavy girdle, having in front two large buckles of embossed or filligree work, such as were formerly in fashion among the Russian ladies at St Petersburgh and Moscow. Their hair is braided behind into several loose tresses; and the head is covered, either with a small red cap, or with a handkerchief crossed below the chin. Their fingers are adorned with rings, and their nails tinged of a reddish-brown colour, with a dye stuff called *kna* (derived from the *lawsonia*) imported from Constantinople for that purpose. Paint is rarely employed by young women.

Married women cut off their hair obliquely over their eyes, and leave two locks also cut transversely, hanging down their cheeks; they likewise bind a long narrow strip of cloth round the head, within the ends of which they confine the rest of the hair, and turn it up from behind, braiding it in two large tresses. Like the Persians, they dye their hair of a reddish brown with *kna*. Their under garment is more open below, but in other respects similar to that of the unmarried women, as are their upper dress and girdle. They paint their faces red with cochineal; and by way of white paint, they use an oxide of tin, carefully prepared in small earthen pipkins over a dung fire. They also dye the white of the eye blue, with a preparation of copper finely pulverized; and by a particular process they change the colour of their hair and eyebrows to a shining black, which is retained for several months. At weddings, or on other solemn occasions, the wealthy females further ornament their faces with flowers of gold leaf; colour their hands and feet, as far as the wrists and ancles, of an orange hue; and destroy all the hairs on the body with a mixture of orpiment and lime.

Both married and single women wear yellow half-boots or stockings of Morocco leather; and for walking, they use red slippers with thick soles, and in dirty weather put on stilt-shoes. Abroad, they wear a kind of undress gown of a loose texture, manufactured by themselves of white wool; wrap several coloured Turkey or white cotton handkerchiefs round their heads, and tie them below the chin; and over all they throw a white linen cloth reaching half way down the arms, drawing it over the face with their right hand, so that their black eyes alone are visible. They avoid as much as possible the company of men; and when they accidentally meet a man in the street, they avert their face, or turn towards the wall.

Polygamy rarely occurs, even among the nobles, and more wealthy inhabitants of the towns; yet there are some

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some persons in the villages, who encumber themselves with two wives. Male and female slaves are not common in this country; but the nobility support numerous idle attendants, and thus impoverish their estates; while their chief pride consists in rich and beautiful apparel for themselves and their wives, and in handsome equipages for riding to town, being accompanied by a train of domestics, who follow them on every excursion, though the chief employment of the latter is that of giving their master his pipe at his demand, standing in his presence, or assisting him to dress, and, in all other respects, living in the same indolent manner as their lords. Another source of expense is the purchase of elegant swords, and especially of excellent blades; the distinction between the different sorts of which, together with their names, constitute among the nobles a complete science. They are also great admirers of beautiful and costly tobacco-pipes, together with expensive mouth-pieces of milk-white amber, that are likewise used by the Turks, and of tubes of curious woods; but the *kallian*, or the pride of the Persians, is scarcely known here; and the Tartars employ only small ornamental bowls made of clay, which are almost every moment filled with fine-cut leaf-tobacco. The generality of these noble lords, or Murses, were so ignorant, that they could neither read nor write; and instead of signing their names, they substituted an impression of their rings, on which a few Turkish words are engraven. Some of the young nobility, however, are beginning to study not only the Russian language, of which they perceive the necessity; but also apply themselves more sedulously to reading and writing, and thus become more civilized. The expense of wearing apparel for the women shut up in their harems is, according to their manner and fortune, little inferior to that of Europeans; with this single difference, that the fashions among the former are not liable to change. Even the wives of the common Tartars are sometimes dressed in silks and stuffs, embroidered with gold, which are imported from Turkey. In consequence of such extravagance, and the extreme idleness of the labouring classes, there are very few wealthy individuals among the Tartars. Credulity and inactivity are the principal traits in the Tartar character. To sit with a pipe in their hands, frequently without smoking, for many hours, on a shady bank, or on a hill, though totally devoid of all taste for the beauties of nature, and looking straight before them; or, if at work, to make long pauses, and above all to do nothing, constitute their supreme enjoyments: for this mode of life, a foundation is probably laid by educating their boys in the harems. Hunting alone occasionally excites a temporary activity in the Murses, who pursue their prey with the large species of greyhound, very common in the Krimea; or with falcons and hawks.

The language and mode of writing of the real Tartars differ little from those of the Turks; but the language of the Nagays deviates considerably from that of the other Tartars, as they have retained numerous Mongolian phrases, and make use of an ancient mode of writing called *shagal'ai*.

The food of the Krimean Tartars is rather artificial for so unpolished a nation. Among the most esteemed delicacies are, forced meat-balls wrapped in green vine or sorrel leaves, and called *sarma;* various fruits, as cucumbers, quinces, or apples, filled with minced meat; *dolma;* stuffed cucumbers; dishes of melons, *badilshan*, and *hibiscus esculentus*, or *bamia*, prepared in various ways with spices or saffron; all of which are served up with rice; also *pelaw*, or rice, boiled in meat-broth, till it becomes dry; fat mutton and lamb, both boiled and roasted, &c.: colt's flesh is likewise considered as a dainty; and horse flesh is more commonly eaten by the Nagays, who are still attached to their ancient custom. The Tartars rarely kill horned cattle: mutton and goat's flesh constitute the food of the common people, especially in the country, together with preparations of milk and eggs; butter, (which they churn and preserve in the dry stomachs of oxen); a kind of pelaw, made either of dried or bruised unripe wheat, and which they call *bulgur;* and, lastly, their bread is generally composed of mixed grain. Their ordinary beverage is made by triturating and dissolving cheese in water; the former of which is called *yasma*, being prepared from coagulated milk, or *yugurt;* but the fashionable intoxicating drink is an ill-tasted and very strong beer, or busà, brewed of ground millet. Many persons also drink a spirituous liquor, *arraki*, which the Tartar mountaineers distil from various kinds of fruit, particularly plums. It is also extracted from sloes, dogberries, elder-berries, and wild grapes, but never from the common cherry. They likewise boil the expressed juice of apples and pears into a kind of marmalade, *bekmess*, of the consistence of a syrup, or that of grapes into *nardenk*, as it is called; the latter preparation is a favourite delicacy, and eagerly purchased by the Tartars of the steppes; hence great quantities of it are imported in deal casks from Anatolia, at a very cheap rate, for the purpose of converting it into brandy.

In consequence of their temperate, simple, and careless habits, the warm clothing which they wear throughout the summer, and the little fatigue which they undergo, the Tartars are liable to few diseases, and, in particular, are generally exempted from the intermittent and bilious remittent fevers which commonly prove so fatal to foreigners and new settlers in the Krimea. Indeed, few disorders, except the itch and rheumatism, prevail among them, and many of them attain to a vigorous old age. The true leprosy, which is by the Ural Kozaks termed the *Krimean disease*, never occurs in this peninsula.*

* Pallas's Travels. 258

Market for Circassian slaves at Theodosia.

As a mistress-market must be a curious subject to the polished nations of Europe, we shall give a specimen of the manner in which it is carried on at Theodosia, in the words of Mr Keelman, a German merchant, as related by Mrs Guthrie. "The fair Circassians," says Mr Keelman, "of whom three were offered me for sale in 1768, were brought from their own chamber into mine (as we all lodged in the same inn), one after another, by the Armenian merchant who had to dispose of them. The first was very well dressed, and had her face covered in the oriental style. She kissed my hand by order of the master, and then walked backward and forward in the room, to show me her fine shape, her pretty small foot, and her elegant carriage. She next lifted up her veil, and absolutely surprised me by her extreme beauty. Her hair was fair, with fine large blue eyes, her nose a little aquiline, with pouting red lips. Her features were regular, her complexion fair and delicate, and her cheeks covered with a fine natural

ral vermilion, of which she took care to convince me by rubbing them hard with a cloth. Her neck I thought a little too long; but, to make amends, the finest bosom and teeth in the world set off the other charms of this beautiful slave, for whom the Armenian asked 4000 Turkish piasters (about 800*l.* sterling), but permitted me to feel her pulse, to convince me she was in perfect health; after which she was ordered away, when the merchant assured me, that she was a pure virgin of 18 years of age.

"I was more surprised than I ought to have been at the perfect indifference with which the inhabitants of Theodosia beheld this traffic in beauty, that had shocked me so much, and at their assuring me, when I seemed affected at the practice, that it was the only method which parents had of bettering the state of their handsome daughters, *destined at all events to the haram;* for that the rich Asiatic gentleman who pays 4000 piasters for a beautiful mistress, treats and prizes her as an earthly houri, in perfect conviction that his success with the houris of Paradise entirely depends on his behaviour to the sisterhood on earth, who will bear testimony against him in case of ill usage; in short, that, by being disposed of to rich mussulmans, they were sure to live in affluence and ease the rest of their days, and in a state by no means degrading in Mahometan countries, where their prophet has permitted the seraglio. But that, on the contrary, if they fell into the hands of their own feudal lords, the barbarous inhabitants of their own native mountains, which it is very difficult for beauty to escape, their lot was comparatively wretched, as those rude chieftains have very little of either respect or generosity towards the fair sex." *

* *Mrs Guthrie's Travels.*

RUST, the calx or oxide of a metal, iron, for instance, formed by exposure to the air, or by corroding and dissolving its superficial parts by some menstruum. Water is the great instrument or agent in producing rust; and hence oils, and other fatty bodies, secure metals from rust; water being no menstruum for oil, and therefore not able to make its way through it. Almost all metals are liable to rust. The rust of iron is not merely an oxide of that metal; it contains, besides, a portion of carbonate.

RUSTIC, in *Architecture*, implies a manner of building in imitation of nature, rather than according to the rules of art. See ARCHITECTURE.

Rustic Gods, dii rustici, in antiquity, were the gods of the country, or those who presided over agriculture, &c. Varro invokes the 12 *dii consentes*, as the principal among the rustic gods; viz. Jupiter, Tellus, the Sun, Moon, Ceres, Bacchus, Rubigus, Flora, Minerva, Venus, Lympha, and Good Luck. Besides these 12 arch-rustic gods, there were an infinity of lesser ones; as Pales, Vertumnus, Tutelina, Fulgor, Sterculius, Mellona, Jugatinus, Collinus, Vallonia, Terminus, Sylvanus, and Priapus. Struvius adds the Satyrs, Fauns, Sileni, Nymphs, and even Tritons; and gives the empire over all the rustic gods to the god Pan.

Rustic Order, that decorated with rustic quoins, rustic work, &c.

Rustic Work, is where the stones in the face, &c. of a building, instead of being smooth, are hatched, or picked with the point of a hammer.

RUSTRE, in *Heraldry*, a bearing of a diamond shape, pierced through in the middle with a round hole. See HERALDRY.

RUT, in hunting, the venery or copulation of deer.

RUTA, RUE; a genus of plants belonging to the decandria class; and in the natural method ranking under the 26th order, *Multisiliquæ*. See BOTANY *Index*.

Rue has a strong ungrateful smell, and a bitterish penetrating taste: the leaves, when full of vigour, are extremely acrid, insomuch as to inflame and blister the skin, if much handled. With regard to their medicinal virtues, they are powerfully stimulating, attenuating, and detergent; and hence, in cold phlegmatic habits, they quicken the circulation, dissolve tenacious juices, open obstructions of the excretory glands, and promote the fluid secretions. The writers on the materia medica in general have entertained a very high opinion of the virtues of this plant. Boerhaave is full of its praises; particularly of the essential oil, and the distilled water cohobated or re-distilled several times from fresh parcels of the herb. After extravagantly commending other waters prepared in this manner, he adds, with regard to that of rue, that the greatest commendations he can bestow upon it fall short of its merit: "What medicine (says he) can be more efficacious for promoting sweat and perspiration, for the cure of the hysteric passion and of epilepsies, and for expelling poison?" Whatever service rue may be of in the two last cases, it undoubtedly has its use in the others: the cohobated water, however, is not the most efficacious preparation of it. An extract made by rectified spirit contains in a small compass the whole virtues of the rue, this menstruum taking up by infusion all the pungency and flavour of the plant, and elevating nothing in distillation. With water, its peculiar flavour and warmth arise; the bitterness, and a considerable share of the pungency, remaining behind.

Ruta Baga, or Swedish turnip. For the mode of cultivation, see AGRICULTURE *Index*.

BOOK OF RUTH, a canonical book of the Old Testament; being a kind of appendage to the book of Judges, and an introduction to those of Samuel; and having its title from the person whose story is here principally related. In this story are observable the ancient rights of kindred and redemption; and the manner of buying the inheritance of the deceased, with other particulars of great note and antiquity. The canonicalness of this book was never disputed; but the learned are not agreed about the epocha of the history it relates. Ruth the Moabitess is found in the genealogy of our Saviour. Matth. i. 5.

RUTILUS. See CYPRINUS, ICHTHYOLOGY *Index*.

RUTHERGLEN, or by contraction RUGLEN, the head borough of the nether ward of Lanarkshire in Scotland, is situated in N. Lat. 55° 51′, and W. Long. 4° 13′; about two miles south-east of Glasgow, and nine west of Hamilton. Few towns in Scotland can lay greater claim to antiquity than Rutherglen. Maitland, in his History of the Antiquities of Scotland, vol. i. p. 92, tells us, that it was founded by a King Reuther, from whom it derived its name; and a tradition of the same import prevails among the inhabitants. But without laying any stress on the authority of tradition, which is often false and always doubtful, we find, from several original charters still preserved, that it was erected into

Rutherglen.

a royal borough by King David I. about the year 1126.

The territory under the jurisdiction of the borough was extensive, and the inhabitants enjoyed many distinguished privileges, which were however gradually wrested from them, by political influence, in favour of Glasgow, which in latter times rose into consequence by trade and manufactures. The ancient dimensions of the place are now unknown; but in the fields and gardens towards the east, the foundations of houses are occasionally discovered. It is now of a very reduced size, consisting but of one principal street and a few lanes, and containing about 1631 inhabitants.

About 150 yards to the south of the main street is a kind of lane, known by the name of *Dins-dykes*. A circumstance which befel the unfortunate Queen Mary, immediately after her forces were routed at the battle of Langside, has ever since continued to characterise this place with an indelible mark of opprobrium. Her majesty, during the battle, stood on a rising ground about a mile from Rutherglen. She no sooner saw her army defeated than she took her precipitate flight to the south. Dins-dykes unfortunately lay in her way. Two rustics, who were at that instant cutting grass hard by, seeing her majesty fleeing in haste, rudely attempted to intercept her, and threatened to cut her in pieces with their scythes if she presumed to proceed a step further. Neither beauty, nor even royalty itself, can at all times secure the unfortunate when they have to do with the unfeeling or the revengeful. Relief, however, was at hand; and her majesty proceeded in her flight.

Adjoining to a lane called the *Back-row* stood the castle of Rutherglen, originally built at a period coeval, it is reported, with the foundation of the town. This ancient fortress underwent several sieges during the unhappy wars in the days of King Robert Bruce, and it remained a place of strength until the battle of Langside; soon after which it was destroyed by order of the regent, to revenge himself on the Hamilton family, in whose custody it then was. The foundations of the buildings are now erased, and the site converted into dwelling-houses and gardens.

The church of Rutherglen, an ancient building of the Saxon-Gothic style, was rendered famous by two transactions, in which the fate of Sir William Wallace and his country was deeply concerned. In it a truce was concluded between Scotland and England in the year 1297 (Henry's Life of Wallace, book vi. verse 862.), and in it Sir John Monteath bargained with the English to betray Wallace his friend and companion. (Life of Wallace, book xi. verse 796.) This ancient building having become incommodious, was, in 1794, pulled down, and one of a modern style was erected in its place. Buried in the area were found vast quantities of human bones, and some relics of antiquity.

No borough probably in Britain possesses a political constitution or sett more free and unembarrassed than Rutherglen. It was anciently under the influence of a self-elected magistracy, many of whom lived at a distance from the borough, and who continued long in office without interruption. Negligence on the one hand, and an undue exertion of power on the other, at length excited the burgesses, about the middle of the last century, to apply an effectual remedy to this evil. The community who, at that period, possessed the power of reforming the abuses that had long prevailed in the management of the borough, were much assisted in their exertions by a Mr David Spens, town-clerk, a gentleman unbiassed by false politics, and who was animated with a high degree of true patriotism. Great opposition was at first made to the reform; but the plan adopted by the burgesses was wisely laid, and was prosecuted with unremitting assiduity. They were proof against the influence and bribery of a party that struggled to continue the old practice; and having at length surmounted every difficulty, they formed a new constitution or sett for the borough, which, in 1671, was approved of by all the inhabitants of the town, and afterwards inserted in the records of the general convention of the royal boroughs of Scotland.

Rutherglen, in conjunction with Glasgow, Renfrew, and Dumbarton, sends a member to the British parliament. The fairs of this town are generally well attended, and have long been famous for a great show of horses, of the Lanarkshire breed, which are esteemed the best draught horses in Britain. The inhabitants of this borough still retain some customs of a very remote antiquity. One of these is the making of *Rutherglen sour cakes*. The operation is attended with some peculiar rites, which lead us to conclude that the practice is of Pagan origin. An account of these rites is given in Ure's History of Rutherglen and Kilbride, p. 94.; from whence we have taken the above account of this place, and which we do not hesitate to recommend to the attention of such of our readers as are fond of natural and local history, being persuaded that they will find it to be both an useful and entertaining performance.

RUTLANDSHIRE, is the smallest county in England, being but 40 miles in circumference; in which are two towns, 48 parishes, and in 1811, 3402 houses, and 16,380 inhabitants. However, for quality it may be compared with any other county; the air being good, and the soil fertile both for tillage and pastures; and it not only affords plenty of corn, but feeds a great number of horned cattle and sheep. It is well watered with brooks and rivulets; and the principal rivers are the Weland and the Wash. It is bounded on the east by Lincolnshire; on the south by the river Weland, which parts it from Northamptonshire; and on the west and north by Leicestershire. It has only two market-towns; namely, Okeham, where the assizes and sessions are held, and Uppingham.

RUYSCH, Frederic, one of the most eminent anatomists of which Holland can boast, was born at the Hague in 1638. After making great progress at home, he repaired to Leyden, and there prosecuted the study of anatomy and botany. He studied next at Franeker, where he obtained the degree of doctor of physic. He then returned to the Hague; and marrying in 1661, dedicated his whole time to the study of his profession. In 1665 he published a treatise, entitled *Dilucidatio valvularum de variis lymphaticis et lacteis*; which raised his reputation so high, that he was chosen professor of anatomy at Amsterdam. This honour he accepted with the more pleasure, because his situation at Amsterdam would give him easy access to every requisite help for cultivating anatomy and natural history. After he settled in Amsterdam, he was perpetually engaged in dissecting and in examining with the most inquisitive eye the various parts of the human body. He improved the

science of anatomy by new discoveries; in particular, he found out a way to preserve dead bodies many years from putrefaction. His anatomical collection was curious and valuable. He had a series of fœtuses of all sizes, from the length of the little finger to that of a new-born infant. He had also bodies of full grown persons of all ages, and a vast number of animals almost of every species on the globe, besides a great many other natural curiosities. Peter the Great of Russia, in his tour through Holland in the year 1698, visited Ruysch, and was so charmed with his conversation, that he passed whole days with him; and when the hour of departure came, he left him with regret. He set so high a value on Ruysch's cabinet of curiosities, that when he returned to Holland in 1717, he purchased it for 30,000 florins, and sent it to Petersburgh.

In 1685 he was made professor of medicine, an office which he discharged with great ability. In 1728 he got his thigh-bone broken by a fall in his chamber. The year before this misfortune happened he had been deprived of his son Henry, a youth of talents, and well skilled in anatomy and botany. He had been created a doctor of physic, and was supposed to have assisted his father in his discoveries and publications. Ruysch's family now consisted only of his youngest daughter. This lady had been early inspired with a passion for anatomy, the favourite science of her father and brother, and had studied it with success. She was therefore well qualified to assist her father in forming a second collection of curiosities in natural history and anatomy, which he began to make after the emperor of Russia had purchased the first. Ruysch is said to have been of so healthy a constitution, that though he lived to the age of 93, yet during that long period he did not labour under the infirmities of disease above a month. From the time he broke his thigh he was indeed disabled from walking without a support; yet he retained his vigour both of mind and body without any sensible alteration, till in 1731 his strength at once deserted him. He died on the 22d of February the same year. His anatomical works are printed in 4 vols 4to.

The style of his writings is simple and concise, but sometimes inaccurate. Instruction, and not ostentation, seems to be his only aim. In anatomy he undoubtedly made many discoveries; but from not being sufficiently conversant in the writings of other anatomists, he published as discoveries what had been known before. The Academy of Sciences at Paris in 1727 elected him a member in place of Sir Isaac Newton, who was lately deceased. He was also a member of the Royal Society of London.

RUYSCHIA, a genus of the monogynia order, belonging to the pentandria class of plants; and in the natural method ranking with those that are doubtful. See Botany *Index*.

RUYTER, Michael Adrian, a distinguished naval officer, was born at Flessingue, a town of Zealand, in 1607. He entered on a seafaring life when he was only 11 years old, and was first a cabin-boy. While he advanced successively to the rank of mate, master, and captain, he acquitted himself with ability and honour in all these employments. He repulsed the Irish, who attempted to take Dublin out of the hands of the English. He made eight voyages to the West Indies and ten to Brazil. He was then promoted to the rank of rear-admiral, and sent to assist the Portuguese against the Spaniards. When the enemy came in sight, he advanced boldly to meet them, and gave such unquestionable proofs of valour as drew from the Portuguese monarch the warmest applause. His gallantry was still more conspicuous before Salee, a town of Barbary. With one single vessel he sailed through the roads of that place, in defiance of five Algerine corsairs who came to attack him.

In 1653 a squadron of 70 vessels was despatched against the English under the command of Van Tromp. Ruyter, who accompanied the admiral in this expedition, seconded him with great skill and bravery in the three battles which the English so gloriously won. He was afterwards stationed in the Mediterranean, where he captured several Turkish vessels. In 1659 he received a commission to join the king of Denmark in his war with the Swedes: and he not only maintained his former reputation, but even raised it higher. As the reward of his services, the king of Denmark ennobled him and gave him a pension. In 1661 he run ashore a vessel belonging to Tunis, released 40 Christian slaves, made a treaty with the Tunisians, and reduced the Algerine corsairs to submission. His country, as a testimony of her gratitude for such illustrious services, raised him to the rank of vice-admiral and commander in chief. To the latter dignity, the highest that could be conferred upon him, he was well entitled by the signal victory which he obtained over the combined fleets of France and Spain. This battle was fought in 1672, about the time of the conquest of Holland. The battle was maintained between the English and Dutch with the obstinate bravery of nations which were accustomed to dispute the empire of the main. Ruyter having thus made himself master of the sea, conducted a fleet of Indiamen safely into the Texel; thus defending and enriching his country, while it had become the prey of hostile invaders. The next year he had three engagements with the fleets of France and England, in which, if possible, his bravery was still more distinguished than ever. D'Estrees, the French vice-admiral, wrote to Colbert in these words: "I would purchase with my life the glory of De Ruyter." But he did not long enjoy the triumphs which he had so honourably won. In an engagement with the French fleet off the coast of Sicily, he lost the day, and received a mortal wound, which put an end to his life in a few days. His corpse was carried to Amsterdam, and a magnificent monument to his memory was there erected by the command of the states-general. The Spanish council bestowed on him the title of duke, and transmitted a patent investing him with that dignity; but he died before it arrived.

When some person was congratulating Louis XIV. upon De Ruyter's death, telling him he had now got rid of one dangerous enemy; he replied, "Every one must be sorry at the death of so great a man."

RYE. See Secale, Botany *Index*; and also Agriculture *Index*.

Rye-Grass. See Agriculture *Index*.

Rye, a town in Sussex, with two markets on Wednesdays and Saturdays, but no fair. It is one of the cinque-ports; is a handsome well-built place, governed by a mayor and jurats, and sends two members to parliament. It has a church built with stone, and a town-hall; and consists of three streets, paved with stone.

Rye, Rymer.

One side of the town has been walled in, and the other is guarded by the sea. It has two gates, and is a place of considerable trade in the shipping way. From thence large quantities of corn are exported, and many of the inhabitants are fishermen. It is 34 miles south-east by south of Tunbridge, and 64 from London. The mouth of the harbour is of late choked up with sand; but, if well opened, it would be a good station for privateers that cruize against the French. Population in 1811, 2681. E. Long. 0. 50. N. Lat. 51. 0.

RYMER, Thomas, Esq. the author of the *Fœdera*, was born in the north of England, and educated at the grammar-school of Northallerton. He was admitted a scholar at Cambridge, then became a member of Gray's Inn, and at length was appointed historiographer to King William in place of Mr Shadwell. He wrote A View of the Tragedies of the last Age, and afterwards published a tragedy named *Edgar*. For a critic he was certainly not well qualified, for he wanted candour; nor is his judgment much to be relied on, who could condemn Shakespeare with such rigid severity. His tragedy will show, that his talents for poetry were by no means equal to those whose poems he has publicly censured. But though he has no title to the appellation of *poet* or *critic*, as an antiquarian and historian his memory will long be preserved. His *Fœdera*, which is a collection of all the public transactions, treaties, &c. of the kings of England with foreign princes, is esteemed one of our most authentic and valuable records, and is oftener referred to by the best English historians than perhaps any other book in the language. It was published at London in the beginning of the 18th century in 17 volumes folio. Three volumes more were added by Sanderson after Rymer's death. The whole were reprinted at the Hague in 10 vols in 1739. They were abridged by Rapin in French, and inserted in Le Clerc's *Bibliotheque*, a translation of which was made by Stephen Whatley, and printed in 4 vols 8vo, 1731.

Rymer died 14th December 1713, and was buried in the parish church of St Clement's Danes. Some specimens of his poetry are preserved in the first volume of Mr Nichol's Select Collection of Miscellaneous Poems, 1780.

Rymer || Ryswick.

RYNCHOPS, a genus of birds belonging to the order of anseres. See Ornithology *Index*.

RYOTS, in the policy of Hindostan, the modern name by which the renters of land are distinguished. They hold their possessions by a lease, which may be considered as perpetual, and at a rate fixed by ancient surveys and valuations. This arrangement has been so long established, and accords so well with the ideas of the natives, concerning the distinction of casts, and the functions allotted to each, that it has been invariably maintained in all the provinces subject either to Mahometans or Europeans; and to both it serves as the basis on which their whole system of finance is founded.

Respecting the precise mode, however, in which the ryots of Hindostan held their possessions, there is much diversity of opinion; the chief of which are very impartially delineated in note iv. to the Appendix of Robertson's Historical Disquisition, &c. concerning India, p. 345.; to which we refer such of our readers as are interested in this subject of finance.

RYSWICK, a large village in Holland, seated between the Hague and Delft, where the prince of Orange has a palace, which stands about a quarter of a mile farther. It is a very noble structure, all of hewn stone, of great extent in front, but perhaps not proportionably high. It is adorned with a marble staircase, marble floors, and a magnificent terrace. There is a good prospect of it from the canal between Delft and the Hague. This place is remarkable for a treaty concluded here in 1697 between England, Germany, Holland, France and Spain. E. Long. 4. 20. N. Lat. 52. 8.

S.

S.

S, ſ, or s, the 18th letter and 14th consonant of our alphabet; the sound of which is formed by driving the breath through a narrow passage between the palate and the tongue elevated near it, together with a motion of the lower jaw and teeth towards the upper, the lips being a little way open; with such a configuration of every part of the mouth and larynx, as renders the voice somewhat sibilous and hissing. Its sound, however, varies; being strong in some words, as *this*, *thus*, &c. and soft in words which have a final *e*, as *muse*, *wise*, &c. It is generally doubled at the end of words, whereby they become hard and harsh, as in *kiss*, *loss*, &c. In some words it is silent, as *isle*, *island*, *viscount*, &c. In writing or printing, the long character *ſ* is generally used at the beginning and middle of words, but the short *s* at the end.

In abbreviation, S stands for *societas* or *socius*; as, R. S. S. for *regiæ societatis socius*, i. e. fellow of the royal society. In medicinal prescriptions, S. A. signifies *secundum artem*, i. e. according to the rules of art: And in the notes of the ancients, S stands for *Sextus*; S. P. for *Spurius*; S. C. for *senatus consultum*; S. P. Q. R. for *senatus populusque Romanus*; S. S. S. for *stratum superstratum*, i. e. one layer above another alternately; S. V. B. E. E. Q. V. for *si vales bene est, ego quoque valeo*, a form used in Cicero's time, in the beginning of letters. Used as a numeral, S anciently denoted seven; in the Italian music, S signifies *solo*: And in books of navigation, S stands for south; S. E. for south-east; S. W. for south-west; S. S. E. for south south-east; S. S. W. for south south-west, &c.

S. Saavedra.

SAAVEDRA, Michael de Cervantes, a celebrated Spanish writer, and the inimitable author of Don Quixote, was born at Madrid in the year 1541. From his

Saavedra. his infancy he was fond of books; but he applied himself wholly to books of entertainment, such as novels and poetry of all kinds, especially Spanish and Italian authors. From Spain he went to Italy, either to serve Cardinal Aquaviva, to whom he was chamberlain at Rome; or else to follow the profession of a soldier, as he did some years under the victorious banners of Marco Antonio Colonna. He was present at the battle of Lepanto, fought in the year 1571; in which he either lost his left hand by the shot of an harquebus, or had it so maimed that he lost the use of it. After this, he was taken by the Moors, and carried to Algiers, where he continued a captive five years and a half. Then he returned to Spain, and applied himself to the writing of comedies and tragedies; and he composed several, all of which were well received by the public, and acted with great applause. In the year 1584 he published his Galatea, a novel in six books; which he presented to Ascanio Colonna, a man of high rank in the church, as the first fruits of his wit. But the work which has done him the greatest honour, and will immortalize his name, is the history of Don Quixote; the first part of which was printed at Madrid in the year 1605. This is a satire upon books of knight-errantry; and the principal, if not the sole, end of it was to destroy the reputation of those books which had so infatuated the greater part of mankind, and especially those of the Spanish nation. This work was universally read; and the most eminent painters, tapestry-workers, engravers, and sculptors, have been employed in representing the history of Don Quixote. Cervantes, even in his lifetime, obtained the glory of having his work receive a royal approbation. As King Philip III. was standing in a balcony of his palace at Madrid, and viewing the country, he observed a student on the banks of the river Manzanares reading in a book, and from time to time breaking off, and beating his forehead with extraordinary tokens of pleasure and delight: upon which the king said to those about him, "That scholar is either mad, or reading Don Quixote:" the latter of which proved to be the case. But *virtus laudatur et alget:* notwithstanding the vast applause his book everywhere met with, he had not interest enough to procure a small pension, for he could scarcely keep himself from starving. In the year 1615, he published a second part; to which he was partly moved by the presumption of some scribbler, who had published a continuation of this work the year before. He wrote also several novels; and among the rest, "The Troubles of Persiles and Sigismunda." He had employed many years in writing this novel, and finished it but just before his death; for he did not live to see it published. His sickness was of such a nature that he himself was able to be, and actually was, his own historian. At the end of the preface to the Troubles of Persiles and Sigismunda, he represents himself on horseback upon the road, and a student, who had overtaken him, engaged in conversation with him: "And happening to talk of my illness (says he), the student soon let me know my doom, by saying it was a dropsy I had got; the thirst attending which, all the water of the ocean, though it were not salt, would not suffice to quench. Therefore Senior Cervantes, says he, you must drink nothing at all, but do not forget to eat; for this alone will recover you without any other physic. I have been told the same by others, answered I; but I can no more forbear tippling, than if I were born to do nothing else. My life is drawing to an end; and from the daily journal of my pulse, I shall have finished my course by next Sunday at the farthest.—But adieu, my merry friends all, for I am going to die; and I hope to see you ere long in the other world, as happy as heart can wish." His dropsy increased, and at last proved fatal to him; yet he continued to say and to write bon mots. He received the last sacrament on the 18th of April 1616; yet the day after wrote a dedication of the Troubles of Persiles and Sigismunda to the condé de Lemos. The particular day of his death is not known.

SABA, a Dutch island near St Eustatia in the West Indies. It is a steep rock, on the summit of which is a little ground, very proper for gardening. Frequent rains, which do not lie any time on the soil, give growth to plants of an exquisite flavour, and cabbages of an extraordinary size. Fifty European families, with about one hundred and fifty slaves, here raise cotton, spin it, make stockings of it, and sell them to other colonies for as much as ten crowns * a pair. Throughout America there is no blood so pure as that of Saba; the women there preserve a freshness of complexion, which is not to be found in any other of the Caribbee islands. Happy colony! elevated on the top of a rock between the sky and sea, it enjoys the benefit of both elements without dreading their storms; it breathes a pure air, lives upon vegetables, cultivates a simple commodity, from which it derives ease without the temptation of riches; is employed in labours less troublesome than useful, and possesses in peace all the blessings of moderation, health, beauty, and liberty. This is the temple of peace, from whence the philosopher may contemplate at leisure the errors and passions of men, who come like the waves of the sea, to strike and dash themselves on the rich coasts of America, the spoils and possession of which they are perpetually contending for, and wresting from each other: hence may he view at a distance the nations of Europe bearing thunder in the midst of the ocean, and burning with the flames of ambition and avarice under the heats of the tropics; devouring gold without ever being satisfied; wading through seas of blood to amass those metals, those pearls, those diamonds, which are used to adorn the oppressors of mankind; loading innumerable ships with those precious casks, which furnish luxury with purple, and from which flow pleasures, effeminacy, cruelty, and debauchery. The tranquil inhabitant of Saba views this mass of follies, and spins his cotton in peace.

Raynal's History, vol. iv.

* 11. 5s.

SABÆANS. See SABIANS.

SABAZIA, in Greek antiquity, were nocturnal mysteries in honour of Jupiter Sabazius. All the initiated had a golden serpent put in at their breasts, and taken out at the lower part of their garments, in memory of Jupiter's ravishing Proserpina in the form of a serpent. There were also other feasts and sacrifices distinguished by this appellation, in honour of Mithras, the deity of the Persians, and of Bacchus, who was thus denominated by the Sabians, a people of Thrace.

SABBATARIANS, or SEVENTH DAY BAPTISTS, a sect of Anabaptists; thus called, because they observed the Jewish or Saturday-Sabbath, from a persuasion that it was never abrogated in the New Testament by the institution of any other.

Saavedra || Sabbatarians.

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1 Definition.

SABBATH, in the Hebrew language, signifies *rest*. The seventh day was denominated the *Sabbath*, or *day of rest*, because that in it God had rested from all his works which he created and made. From that time the seventh day seems to have been set apart for religious services; and, in consequence of a particular injunction, was afterwards observed by the Hebrews as a holyday. They were commanded to set it apart for sacred purposes in honour of the creation, and likewise in memorial of their own redemption from Egyptian bondage.

2 Importance of the institution, and early ceremonies.

The importance of the institution may be gathered from the different laws respecting it. When the ten commandments were published from Mount Sinai in tremendous pomp, the law of the Sabbath held a place in what is commonly called the first table, and by subsequent statutes the violation of it was to be punished with death. Six days were allowed for the use and service of man; but the seventh day God reserved to himself, and appointed it to be observed as a stated time for holy offices, and to be spent in the duties of piety and devotion. On this day the ministers of the temple entered upon their week; and those who had attended on the temple service the preceding week went out at the same time. New loaves of shew-bread were placed upon the golden table, and the old ones taken away. Two lambs for a burnt-offering, with a certain proportion of fine flour, mingled with oil, for a bread-offering, and wine for a libation, were offered. The Sabbath, as all other festivals, was celebrated from evening to evening. It began at six in the evening on Friday, and ended at the same time the next day.

3 Time of its institution.

Concerning the time at which the Sabbath was first instituted, different opinions have been held. Some have maintained, that the sanctification of the seventh day, mentioned in Gen. ii. is only there spoken of διὰ προλεψιν, or by anticipation; and is to be understood of the Sabbath afterwards enjoined the children of Israel at the commencement of the Mosaic dispensation. But without entering into a particular examination of all the arguments adduced to support this opinion, a few observations, it is presumed, will be sufficient to show that it rests on no solid foundation.

It cannot easily be supposed that the inspired penman would have mentioned the sanctification of the seventh day amongst the primeval transactions, if such sanctification had not taken place until 2500 years afterwards. Writers, ambitious of that artificial elegance which the rules of criticism have established, often bring together in their narratives events which were themselves far distant, for the sake of giving form to their discourse; but Moses appears to have despised all such flimsy refinements, and to have constructed his narrative in great conformity to the series of events.

4 Religious service in the patriarchal age.

From the accounts we have of the religious service practised in the patriarchal age, it appears that, immediately after the fall, when Adam was restored to favour through a Mediator, a stated form of public worship was instituted, which man was required to observe, in testimony, not only of his dependence on the Creator, but also of his *faith* and *hope* in the promise made to our first parents, and seen afar of. Of an institution, then, so grand and important, no circumstance would be omitted that is necessary to preserve it, or that contributes to render the observance of it regular and solemn.

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5 Necessity of stated days for the performance.

That determined times are necessary for the due celebration of divine service, cannot be denied. Such is the constitution of man, that he must have particular times set apart for particular services. He is doomed to toil and labour; to earn his bread in the sweat of his face; and is capable of performing religious duties only in such a manner as is consistent with his situation in the world. If stated times for religious solemnities had not been enjoined, the consequence would have been, that such solemnities would have been altogether neglected; for experience shows, that if mankind were left at liberty when and how often they should perform religious offices, these offices would not be performed at all. It is the observation of holy times that preserves the practice of holy services; and without the frequent and regular returns of hallowed days, man would quickly forget the duty which he owes to God, and in a short time no vestige of religion would be found in the world.

6 Objections to the early institution of the Sabbath considered.

Among the ordinances which God vouchsafed his ancient people, we find that the pious observation of holydays was particularly insisted upon; and the Sabbath was enjoined to be kept holy, in the most solemn manner, and under the severest penalties. Can it then be supposed that He would suffer mankind, from the creation of the world to the Mosaic era, to remain without an institution so expedient in itself, and as well fitted to answer the end proposed by it, under the one dispensation, as ever it could be under the other? No; we have every imaginable reason to conclude, that when religious services were enjoined, religious times were appointed also; for the one necessarily implies the other.

It is no objection to the early institution of the Sabbath, that there is no mention of it in the history of the patriarchal age. It would have swelled the Bible to a most enormous size, had the sacred historian given a particular account of all the transactions of those times; besides, it would have answered no end. When Moses wrote the book of Genesis, it was unnecessary to relate minutely transactions and institutions already well known by tradition: accordingly we see, that his narrative is everywhere very concise, and calculated only to preserve the memory of the most important facts. However, if we take a view of the church-service of the patriarchal age, we shall find that what is called the *legal* dispensation, at least the liturgic part of it, was no new system, but a collection of institutions observed from the beginning, and republished in form by Moses. The Scriptures inform us that Cain and Abel offered sacrifices; and the account which is given of the acceptance of the one, and the rejection of the other, evidently shows that stated laws respecting the service had then taken place. "In process of time," *at the end of the days*, "Abel brought an offering." Here was *priest, altar, matter of sacrifice, appointed time, motive to sacrifice, atonement made*, and *accepted*. The distinction of animals into clean and unclean before the flood, and Noah's sacrifice immediately after his deliverance, without any new direction, is an unanswerable proof of the same truth. It is testified of Abraham, by God himself, that he kept his *charge*, his *commandments*, his *statutes*, and his *laws*. These expressions comprehend the various branches, into which the law given at Sinai was divided. They contain the moral precepts, affirmative and negative, the matter of religious service, a body of laws

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laws to direct obedience, and to which man was to conform his conduct in every part of duty. Agreeably to this, we find that sacrifices were offered, altars and places of worship consecrated, and the *Sabbath* also mentioned as a well-known solemnity, before the promulgation of the law. It is expressly taken notice of at the fall of manna; and the incidental manner in which it is then mentioned, is a convincing proof that the Israelites were no strangers to the institution: for had it been a *new* one, it must have been enjoined in a positive and particular manner, and the nature of it must have been laid open and explained, otherwise the term would have conveyed no meaning.

7. Argument from the general division of time into weeks.

The division of time into *weeks*, or periods of seven days, which obtained so early and almost universally, is a strong indication that *one* day in seven was always distinguished in a particular manner. *Week*, * and *seven days*, are in scripture language synonymous terms. God commanded Noah, *seven days* before he entered the ark, to introduce into it all sorts of living creatures. When the waters of the flood began to abate, Noah sent forth a dove, which, finding no rest for the sole of her foot, returned to him. After *seven days* he sent forth the dove a second time, and again she returned to the ark. At the expiration of other *seven days* he let go the dove a third time: and a *week* is spoken of (Gen. xxix.) as a well-known space of time.

* שבע *Seven.*

This septenary division of time has been, from the earliest ages, uniformly observed over all the eastern world. The Israelites, Assyrians, Egyptians, Indians, Arabians, and Persians, have always made use of a week, consisting of seven days. Many vain attempts have been made to account for this uniformity; but a practice so general and prevalent could never have taken place, had not the septenary distribution of time been instituted from the beginning, and handed down by tradition.

From the same source also must the ancient heathens have derived their notions of the sacredness of the seventh day. That they had such notions of it is evident from several passages of the Greek poets quoted by Aristobulus, a learned Jew, by Clement of Alexandria, and Eusebius.

———ἑβδομη, ἱερον ἡμαρ. Hesiod.
The seventh, the *sacred* day.

Ἑβδοματη δ' επειτα κατηλυθεν, ἱερον ἡμαρ. Homer.
Afterwards came the seventh, the *sacred* day.

Again:

Ἑβδομον ἡμαρ εην, και τω τετελετο παντα.
On the *seventh* day all things were *completed*.

Ἑβδοματη δυοι τετελεσμενα παντα τετυκται. Linus.
All things were made *perfect* on the *seventh* day.

That they likewise held the number *seven* in high estimation has been shown by a learned, though sometimes fanciful, author, * with such evidence as to enforce conviction. The Pythagoreans call it the *venerable* number, σεβασμα αξιος, *worthy of veneration*, and held it to be *perfect* and *most proper* to religion. They denominated it *fortune*, and also styled it *voice*, *sound*, *muse*, because, no doubt, *seven* distinct notes comprehend the whole scale of music, beyond which neither voice nor instrument can go, but must return from the seventh, and begin again anew. They likewise designed it τελεσφορος, *leading to the end*. *Seven*, in the Hebrew language, is expressed by a word that primarily signifies *fulness*, *completion*, *sufficiency*, and is applied to a *week*, or *seven days*, because that was the *full time* employed in the work of creation; to the *Sabbath*, because on it all things were *completed*; and to an *oath*, because it is *sufficient* to put an end to all strife. This opening of the Hebrew root will enable us to come at the meaning of those expressions of the heathens, and also let us see whence they derived their ideas and modes of speaking, and that the knowledge of the transactions at the creation, though much perverted, was never entirely lost by them.

* *Holloway's Originals*, vol. ii. p. 60.

It has been supposed by some, that the heathens borrowed the notion of the *sacredness* of the seventh day from the Jews. But this opinion will not readily be admitted, when it is considered that the Jews were held in the greatest contempt by the surrounding nations, who derided them no less for their sabbaths than for their circumcision. All sorts of writers ridiculed them on this account. Seneca charged them with spending the seventh part of their time in sloth. Tacitus said, that not only the seventh day, but also the seventh year, was unprofitably wasted. Juvenal brings forward the same charge; and Persius upbraided them with their *recutita sabbata*. Plutarch said that they kept it in honour of Bacchus. Tacitus affirmed, that it was in honour of Saturn; but the most abominable assertion of all is that of Apion, who said that they observed the Sabbath in memory of their being cured on that day of a shameful disease, called by the Egyptians *sabbo*.

Some perceiving the force of this objection have contended, that time was divided into weeks of seven days, that each of the planetary gods, the Sun, Moon, Mercury, Venus, Mars, Jupiter, and Saturn, who were the *Dii majorum gentium*, might have a day appropriated to his service. But if such was the origin of weeks, how came the great and ancient goddess *Tellus* to be omitted? She was worshipped by the early idolators as well as the other planets, and must surely have been deemed by them as worthy of a particular day set apart to her honour as the planet Saturn, who was long undiscovered, afterwards seen but occasionally, and at all times considered as of malign aspect. (See Remphan.)

Others have supposed, that as the year was divided into lunar months of something more than 28 days, it was natural to divide the months into quarters from the different phases of the moon, which would produce as many weeks of seven days. But this supposition is less tenable than the former. The phases of the moon are not so precisely marked at the quarters as to attract to them any particular notice, nor are the quarterly appearances of one month commonly like those of another. We cannot, therefore, conceive what should have induced the earliest observers of the phases of the moon to divide the month into four parts rather than into three, or five, or seven. Had the ancient week consisted of 14 days, it might have been inferred, with some degree of plausibility, that its length was regulated by the phases of the moon, because the shape of that luminary, at the end of the second quarter, is very precisely marked; but there is nothing which, in the present hypothesis, could have everywhere led mankind to make their weeks consist of seven days. This division of time, therefore, can

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can be accounted for only by admitting the primeval institution of the Sabbath, as related by Moses in the book of Genesis. That institution was absolutely necessary to preserve among men a sense of religion; and it was renewed to the Jews at the giving of the law, and its observance enforced by the severest penalties. It was accordingly observed by them with more or less strictness in every part of their commonwealth; and there is none of the institutions of their divine lawgiver which, in their present state of dispersion, they more highly honour. They regard it, indeed, with a superstitious reverence, call it their *spouse*, their *delight*, and speak of it in the most magnificent terms. They have often varied in their opinions of the manner in which it ought to be kept. In the time of the Maccabees, they carried their respect for the sabbath so very high, that they would not on that day defend themselves from the attacks of their enemies. But afterwards they did not scruple to stand upon their necessary defence, although they would do nothing to prevent the enemy from carrying on their operations. When our Saviour was on earth, it was no sin to loose a beast from the stall, and lead him to water; and if he had chanced to fall into a ditch, they pulled him out: but now it is absolutely unlawful to give a creature in that situation any other assistance than that of food; and if they lead an animal to water, they must take care not to let the bridle or halter hang loose, otherwise they are transgressors.

8 Strict manner in which the ancient Jews observed the Sabbath.

9 Mode of observing it among the modern Jews.

As the law enjoins rest on that day from all servile employments, in order to comply with the injunction, they undertake no kind of work on Friday but such as can easily be accomplished before evening. In the afternoon they put into proper places the meat that they have prepared to eat the day following. They afterwards set out a table covered with a clean cloth, and place bread upon it, which they also cover with another cloth; and during the sabbath the table is never moved out of its place. About an hour before sunset, the women light the sabbath lamps, which hang in the places where they eat. They then stretch forth their hands to the light, and pronounce the following benediction. "Blessed be thou, O God, king of the world, who hast enjoined us, that are sanctified by thy commandments, to light the sabbath lamp." These lamps are two or more in number, according to the size of the chamber in which they are suspended, and continue to burn during the greatest part of the night. In order to begin the sabbath well, they wash their hands and faces, trim their hair, and pare their nails, beginning at the fourth finger, then going to the second, then the fifth, then the third, and ending with the thumb. If a Jew casts the parings of his nails to the ground, he is *rascah*, that is, a *wicked* man; for Satan has great power over those parings of nails; and it seems they are of great use to the wizards, who know how to employ them in their enchantments. If he buries them in the earth, he is *tzedic*, that is, a *just* man: if he burns them in the fire, he is *chesid*, that is, worthy of honour, an holy man. When they have performed these preparatory ceremonies, they repair to the synagogue, and enter upon their devotions. As soon as prayers begin, the departed souls spring out of the purgatorial flames, and have liberty to cool themselves in water while the sabbath lasts; for which reason the Jews prolong the continuance of it as much as they can; and the Rabbins have strictly commanded them not to exhaust all the water on the sabbath day, lest those miserable souls should by that means be deprived of the refreshing element. When they have ended their prayers, they return home, and salute one another, by wishing a good sabbath. They then sit down to table. The master of the family takes a cup full of wine, and lifting up his hand, says, "Blessed be thou, O God our Lord, king of the world, who hast created the fruit of the vine.—Blessed be thou, O God our Lord, king of the world, who hast sanctified us by thy commandments, and given us thy holy sabbath; and of thy good will and pleasure hast left it to us an inheritance, the memorial of thy works of creation. For it is the beginning of the congregation of saints, and the memorial of the coming out of Egypt. And thou hast also chosen us from all other people, and sanctified us, and with love and pleasure hast left thy holy sabbath an inheritance. Blessed be thou, O God, who sanctifiest the sabbath." After this benediction is ended, he drinks, and gives the cup to all that are present. He then removes the cloth, and taking bread, says, "Blessed be thou, O God our Lord, king of the world, who bringest bread out of the earth." Then he breaks off a bit, and eats, and also gives a piece of it to every one of the company.

On the morning of the sabbath, the Jews do not rise so early as they do at other times; thinking, the greater pleasure they take on that day, the more devoutly they keep it. When they come into the synagogue, they pray as usual, only the devotions are somewhat longer, being intermingled with psalmody, in honour of the sabbath. The pentateuch is then produced, and seven sections of it are read in order by seven persons chosen for the purpose. Several lessons are likewise read out of the prophets, which have some relation to what was read out of the law. After morning prayers they return to their houses, and eat the second sabbath-meal, showing every token of joy, in honour of the festival. But if one has seen any thing ominous in his sleep; if he has dreamed that he burnt the book of the law; that a beam has come out of the walls of his house; that his teeth have fallen out;—then he fasts until very late at night, for all such dreams are bad ones. In the afternoon they go again to the synagogue, and perform the evening service, adding to the ordinary prayers some lessons that respect the sabbath. When the devotional duties are ended, they return home, and light a candle resembling a torch, and again sit down to eat. They remain eating until near six, and then the master of the family takes a cup, and pouring wine into it rehearses some benedictions; after which he pours a little of the wine upon the ground, and says, "Blessed be thou, O Lord, King of the world, who hast created the fruit of the vine." Then holding the cup in his left hand, with the right he takes a box of sweet spices, and says, "Blessed be thou, O Lord God, who hast created various kinds of sweet spices." He smells the spices, and holds them out to the rest, that they may do the same. He then takes the cup in his right hand, and going to the candle views the left very narrowly, and pronounces a blessing. With the cup in the left hand, he examines the right in the same manner. Again, holding the cup in his right hand, he rehearses another benediction, and at the same time pours some of the wine

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on the ground. After this he drinks a little of it, and then hands it about to the rest of the family, who finish what remains. In this manner the sabbath is ended by the Jews, and they may return to their ordinary employments. Those who meet pay their compliments, by wishing one another a happy week.

10 Prohibitions observed.

The Rabbins have reckoned up nine and thirty primary prohibitions, which ought to be observed on the sabbatic festival; but their circumstances and dependents, which are also obligatory, are almost innumerable. The 39 articles are, Not to till the ground; to sow; to reap; to make hay; to bind up sheaves of corn; to thrash; to winnow; to grind; to sift meal; to knead the dough; to bake; to shear; to whiten; to comb or card wool; to spin; to twine or twist; to warp; to dye; to tie; to untie; to sew; to tear or pull in pieces; to build; to pull down; to beat with a hammer; to hunt or fish; to kill a beast; to flay it; to dress it; to scrape the skin; to tan it; to cut leather; to write; to scratch out; to rule paper for writing; to kindle a fire; to extinguish it; to carry a thing from place to place; to expose any thing to sale. These are the primary prohibitions, and each of these has its proper consequences, which amount to an incredible number; and the Jews themselves say, that if they could keep but two sabbaths as they ought, they would soon be delivered out of all their troubles.

If a Jew on a journey is overtaken by the sabbath in a wood, or on the highway, no matter where, nor under what circumstances, he sits down; he will not stir out of the spot. If he falls down in the dirt, he lies there; he will not rise up. If he should tumble into a privy, he would rest there: he would not be taken out. (A). If he sees a flea skipping upon his clothes, he must not catch it. If it bites him he may only remove it with his hand; he must not kill it; but a louse meets with no such indulgence, for it may be destroyed. He must not wipe his hands with a towel or cloth, but he may do it very lawfully with a cow's tail. A fresh wound must not be bound up on the sabbath day; a plaster that had been formerly applied to a sore may remain on it; but if it falls off, it must not be put on anew. The lame may use a staff, but the blind must not. These particulars, and a great many more of the same nature, are observed by the Jews in the strictest manner. But if any one wishes to know more of the practice of that devoted race, he may consult Buxtorf's *Judaica Synagoga*, chap. x. xi. where he will find a complete detail of their customs and ceremonies on the sabbath; and likewise see the primary prohibitions branched out into their respective circumstances.

11 Institution of Sunday or the Lord's day.

As the seventh day was observed by the Jewish church, in memory of the rest of God after the works of creation, and their own deliverance from Pharaoh's tyranny; so the first day of the week has always been observed by the Christian church, in memory of the resurrection of Jesus Christ, by which he completed the work of man's redemption on earth, and rescued him from the dominion of him who has the power of death.

This day was denominated by the primitive Christians the *Lord's day*. It was also sometimes called *Sunday*; which was the name given to it by the heathens, who dedicated it to the sun. And indeed, although it was originally called *Sunday* by the heathens, yet it may very properly retain that name among Christians, because it is dedicated to the honour of "The true light," which lighteth every man that cometh into the world; of Him who is styled by the prophet "The Sun of righteousness," and who on this day arose from the dead. But although it was, in the primitive times, indifferently called the *Lord's day* or *Sunday*, yet it was never denominated the *sabbath*; a name constantly appropriated to Saturday, or the *seventh* day, both by sacred and ecclesiastical writers.

12 The mention of it in the New Testament accidental.

Of the change from the *seventh* to the *first* day of the week, or even of the institution of the *Lord's day* festival, there is no account in the New Testament. However, it may be fairly inferred from it, that the first day of the week was, in the apostolic age, a stated time for public worship. On this day the apostles were assembled, when the Holy Ghost came down so visibly upon them to qualify them for the conversion of the world. On this day we find St Paul preaching at Troas, when the disciples came to break bread: and the directions which the same apostle gives to the Corinthians concerning their contributions for the relief of their suffering brethren, plainly allude to their religious assemblies on the first day of the week.

Thus it would appear from several passages in the New Testament, that the religious observation of the first day of the week is of apostolical appointment; and may indeed be very reasonably supposed to be among those directions and instructions which our blessed Lord himself gave to his disciples, during the 40 days between his resurrection and ascension, wherein he conversed with them, and spoke of the things pertaining to the kingdom of God. Still, however, it must be owned that those passages, although the plainest that occur, are not sufficient to prove the apostolical institution of the Lord's day, or even the actual observation of it. In order, therefore, to place the matter beyond all controversy, recourse must be had to ecclesiastical testimony.

From the consentient evidence and uniform practice of the primitive church, and also from the attestation of Pliny, an heathen of no mean figure both in learning and power, we find that the first day of the week was observed in the earliest ages as a holyday or festival, in honour of the resurrection of Christ. Now there are but two sources whence the custom could possibly have arisen. It must have been instituted either by *human* or *divine* authority: by human authority it was not instituted; for there was no general council in those early times, and without the decree of a general council it was impossible that any ecclesiastical institution could

(A) This, it seems, was once really the case. A Jew of Magdeburg fell into a privy on a Saturday. He might have been taken out; but he told those who offered him their assistance to give themselves no trouble; for there he was determined to keep holy the sabbath day. The bishop, when he heard of it, resolved that he should sanctify the next day also in the same place; and so betwixt them, the poor Jew lost his life.

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could have been universally established at once. It remains, therefore, that it must have been instituted by divine authority: and that it really was so, will farther appear from the following considerations. It is certain that the apostles travelled over the greatest part of the world, and planted churches in the remotest parts of it. It is certain also that they were all led by the same *spirit;* and their desire was, that unity and uniformity should be observed in all the churches which they had founded. It is not therefore surprising that, in the primitive times, the same doctrine, the same worship, the same rites and customs, should prevail all over the Christian world; nay, it would have been unaccountable had the case been otherwise. For this reason we may conclude that every custom, universally observed in the early ages of the Christian church, and not instituted by a general council, was of original appointment.

13 but nevertheless it appears to be of divine origin.

14 Purpose for which the Lord's day was instituted.

As the *Lord's day* is sanctified, that is, *set apart* to Christians for the worship and service of God, their Creator, Redeemer, and Sanctifier, a little consideration will easily discover how it ought to be observed. Although a day separated from worldly business, yet it is in no sense a day of idleness, but a season appropriated to the works of salvation and labours of charity.

15 How it was observed in the primitive times.

In the primitive times this holy day was observed in the most solemn manner. From the monuments of those early ages we learn, that it was spent in a due and constant attendance on all the offices of divine worship. On it they held their religious assemblies, in which the writings of the apostles and prophets were read to the people, and the doctrines of Christianity further pressed upon them by the exhortations of the clergy. Solemn prayers and praises were offered up to God, and hymns sung in honour of Christ; the Lord's supper was constantly celebrated; and collections were made for the maintenance of the clergy and the relief of the poor. On this day they abstained, as much as they could, from bodily labour. They looked upon it as a day of joy and gladness; and therefore all fasting on it was prohibited, even during the season of lent, their great annual fast.—Such was the zeal of those times, that nothing, no not the severest persecutions, hindered them from celebrating holy offices on this day. They were often beset and betrayed, and as often slaughtered in consequence of cruel edicts from emperors, those very emperors for whose happiness and prosperity they always offered up their fervent prayers. For this cause, when they could not meet in the daytime, they assembled in the morning before it was light; and when sick, in exile, or in prison, nothing troubled them more than that they could not attend the service of the church. No trivial pretences were then admitted for any one's absence from public worship; for severe censures were passed upon all who were absent without some urgent necessity. When the empire became Christian, Constantine and his successors made laws for the more solemn observation of the Lord's day. They prohibited all prosecutions and pleadings and other juridical matters to be transacted on it, and also all unnecessary labour; not that it was looked upon as a Jewish sabbath, but because these things were considered as inconsistent with the duties of the festival.

But although the primitive Christians did not indulge themselves in the practice of unnecessary labour or trifling amusements, yet they did not wholly abstain from working, if great necessity required it. The council of *Laodicea* enjoined that men should abstain from work on the Lord's day *if possible;* but if any were found to *judaize*, they were to be censured as great transgressors. So circumspect were the primitive Christians about their conduct on this festival, that on the one hand they avoided all things which tended to profane it, whilst on the other they censured all those who insisted it should be observed with Pharisaical rigour.

16 Advantages resulting from the observation of it.

The primary duty of the Lord's day is *public worship*. The nature and design of the Christian religion sufficiently shows the necessity and importance of assembling for the duties of devotion. The whole scope of Christianity is to bring us to an union with God, which cannot be obtained or preserved without frequent communications with him; and the reasons which show religious intercourse to be the indispensable duty of Christians in a private capacity, will bind it with equal or more force on them considered as a community.

The advantages of public worship, when duly performed, are many and great. There are two, however, which deserve to be considered in a particular manner. It gives Christians an opportunity of openly professing their faith, and testifying their obedience to their Redeemer in the wisest and best manner; and in an age when atheism has arisen to an alarming height, when the Son of God is crucified afresh, and put to open shame, every man, who has any regard for religion, will cheerfully embrace all opportunities of declaring his abhorrence of the vicious courses pursued by those degenerate apostates. He will with pleasure lay hold on every occasion to testify that he is neither afraid nor ashamed to confess the truth; and will think it his indispensable duty openly to disavow the sins of others, that he may not incur the guilt of partaking of them.

Public worship preserves in the minds of men a sense of religion, without which society could not exist. Nothing can keep a body of men together and unite them in promoting the public good, but such principles of action as may reach and govern the heart. But these can be derived only from a sense of religious duties, which can never be so strongly impressed upon the mind as by a constant attendance upon public worship. Nothing can be more weak than to neglect the public worship of God, under the pretence that we can employ ourselves as acceptably to our Maker at home in our closets. Both kinds of worship are indeed necessary; but one debt cannot be paid by the discharge of another. By public worship every man professes his belief in that God whom he adores, and appeals to Him for his sincerity, of which his neighbour cannot judge. By this appeal he endears himself more or less to others. It creates confidence; it roots in the heart benevolence, and all other Christian virtues, which produce, in common life, the fruits of mutual love and general peace.

People in general are of opinion that the duties of the Lord's day are over when public worship is ended. But they seem to forget for what purposes the day was set apart. It is not only appropriated to the duties of public worship, but also sanctified to our improvement in the knowledge of the doctrines of Christianity. It is

Sabbath, Sabbath-Breaking.

is an institution calculated to alleviate the condition of the laborious classes of mankind, and, in consequence of that, to afford rest to *beasts* also. It is proper, it is necessary, that man should reflect on his condition in the world, that he should examine the state of his soul, and inquire what progress he has made in that work which was given him to do. Those that have children or servants are obliged to look after *their* instruction as well as their own. These are the ends which the institution of Sunday was designed to answer. Every man must allow that these things must be done at some time or other; but unless there be *set* times for doing them, the generality of mankind would wholly neglect them.

Visiting and *travelling* (though very common) are enormous profanations of this holy day. Families are thereby robbed of their *time;* a loss for which no amends can ever be made them: Servants, instead of having leisure to improve themselves in spiritual knowledge, are burdened with additional labour: And, in a man of any humanity, it must excite many painful sensations, when he reflects how often the useful horse on that day experiences all the anguish of hunger, torn sides, and battered knees. Every kind of *amusement*, every kind of *common* labour, is an encroachment on the particular duties of the Lord's day; and consequently men profane the day by spending it in any amusements, or undertaking upon it any ordinary employment, unless it be a work of absolute necessity.

Sabbath-Breaking, or profanation of the Lord's day, is punished by the municipal laws of England. For besides the notorious indecency and scandal of permitting any secular business to be publicly transacted on that day in a country professing Christianity, and the corruption of morals which usually follows its profanation, the keeping one day in seven holy, as a time of relaxation and refreshment, as well as for public worship, is of admirable service to a state, considered merely as a civil institution. It humanizes, by the help of conversation and society, the manners of the lower classes; which would otherwise degenerate into a sordid ferocity and savage selfishness of spirit: it enables the industrious workman to pursue his occupation in the ensuing week with health and cheerfulness: it imprints on the minds of the people that sense of their duty to God so necessary to make them good citizens; but which yet would be worn out and defaced by an unremitted continuance of labour, without any stated times of recalling them to the worship of their Maker. And therefore the laws of King Athelstan forbade all merchandizing on the Lord's day, under very severe penalties. And by the statute 27 Hen. VI. c. 5. no fair or market shall be held on the principal festivals, Good-friday, or any Sunday (except the four Sundays in harvest), on pain of forfeiting the goods exposed to sale. And, since, by the statute 1 Car. I. c. 1. no persons shall assemble, out of their own parishes, for any sport whatsoever, upon this day; nor, in their parishes, shall use any bull or bear-beating, interludes, plays, or other unlawful exercises or pastimes; on pain that every offender shall pay 3s. 4d. to the poor. This statute does not prohibit, but rather impliedly allows, any innocent recreation or amusement, within their respective parishes, even on the Lord's day, after divine service is over. But by statute 29 Car. II. c. 7. no person is allowed to work on the Lord's day, or use any boat or barge, or expose any goods to sale, except meat in public houses, milk at certain hours, and works of necessity or charity, on forfeiture of 5s. Nor shall any drover, carrier, or the like, travel upon that day, under pain of 20s.

Sabbath-Breaking || Sable.

SABELLIANS, a sect of Christians of the 3d century, that embraced the opinions of Sabellius, a philosopher of Egypt, who openly taught that there is but one person in the Godhead.

The Sabellians maintained, that the Word and the Holy Spirit are only virtues, emanations, or functions of the Deity; and held, that he who is in heaven is the Father of all things; that he descended into the virgin, became a child, and was born of her as a son; and that having accomplished the mystery of our salvation, he diffused himself on the apostles in tongues of fire, and was then denominated the *Holy Ghost*. This they explained by resembling God to the sun, the illuminative virtue or quality of which was the Word, and its warming virtue the Holy Spirit. The Word, they taught, was darted, like a divine ray, to accomplish the work of redemption; and that being re-ascended to heaven, the influences of the Father were communicated after a like manner to the apostles.

SABIANS, an early sect of idolaters, which continues to this day, and worships the sun, moon, and stars. See Polytheism, N° 10, 11, 12.

SABINA, a province of Italy, in the territories of the church; bounded on the north by Umbria, on the east by Farther Abruzzo, on the south by the Campagna of Rome, and on the west by the patrimony of St Peter. It is 22 miles in length, and almost as much in breadth; watered by several small rivers, and abounding in oil and wine. There is no walled town in it; and Magliano is the principal place.

SABINUS, George, a celebrated Latin poet, born in the electorate of Brandenburg in 1508. His poem *Res gestæ Cæsarum Germanorum*, spread his reputation all over Germany, and procured him the patronage of all the princes who had any regard for polite literature: he was made professor of the belles lettres at Frankfort on the Oder, rector of the new academy of Konings-burg, and counsellor to the elector of Brandenburg. He married two wives, the first of whom was the eldest daughter of the famous reformer Melancthon; and died in 1560. His poems are well known, and have been often printed.

SABLE, or *Sable Animal*, in *Zoology*, a creature of the weasel-kind, called by authors *mustela zibellina*. See Mustela, Mammalia *Index*.

The chase of these animals, in the more barbarous times of the Russian empire, was the employment, or rather task, of the unhappy exiles in Siberia. As that country is now become more populous, the sables have in a great measure quitted it, and retired farther north and east, to live in desert forests and mountains: they live near the banks of rivers, or in the little islands in them; on this account they have, by some, been supposed to be the Σαῦσιον of Aristotle (*Hist. An.* lib. viii. c. 5.) which he classes with the animals conversant among waters.

At present the hunters of sables form themselves into troops, from five to forty each: the last subdivide into lesser parties, and each chooses a leader; but there is one that directs the whole: a small covered boat is provided

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provided for each party, loaded with provisions, a dog and net for every two men, and a vessel to bake their bread in: each party also has an interpreter for the country they penetrate into. Every party then sets out according to the course their chief points out: they go against the stream of the rivers, drawing their boats up, till they arrive in the hunting country; there they stop, build huts, and wait till the waters are frozen, and the season commences: before they begin the chase, their leader assembles them, when they unite in a prayer to the Almighty for success, and then separate: the first sable they take is called *God's sable*, and is dedicated to the church.

They then penetrate into the woods; mark the trees as they advance, that they may know their way back; and in their hunting quarters form huts of trees, and bank up the snow round them: near these they lay their traps; then advance farther, and lay more traps, still building new huts in every quarter, and return successively to every old one to visit the traps, and take out the game to skin it, which none but the chief of the party must do: during this time they are supplied with provisions by persons who are employed to bring it on sledges, from the places on the road, where they are obliged to form magazines, by reason of the impracticability of bringing quantities through the rough country they must pass. The traps are a sort of pitfall, with a loose board placed over it, baited with fish or flesh: when sables grow scarce, the hunters trace them in the new-fallen snow to their holes; place their nets at the entrance; and sometimes wait, watching two or three days for the coming out of the animal: it has happened that these poor people have, by the failure of their provisions, been so pinched with hunger, that, to prevent the cravings of appetite, they have been reduced to take two thin boards, one of which they applied to the pit of the stomach, the other to the back, drawing them tight together by cords placed at the ends: such are the hardships our fellow-creatures undergo to supply the wantonness of luxury.

The season of chase being finished, the hunters reassemble, make a report to their leader of the number of sables each has taken; make complaints of offenders against their regulations; punish delinquents; share the booty; then continue at the head-quarters till the rivers are clear of ice; return home, and give to every church the dedicated furs.

Sable, *Cape*, the most southerly province of Nova Scotia, in North America, near which is a fine cod-fishery. W. Long. 65. 34. N. Lat. 43. 24.

Sable Isle is adjoined to this cape, and the coasts of both are most commodiously situated for fisheries.

Sable Trade, the trade carried on in the skins or furs of sables; of which the following commercial history was translated by Mr J. R. Forster from a Russian performance on that subject by Mr Muller.

"*Sable; soble*, in Russian; *zoble* in German. Their price varies from 1*l.* to 10*l.* sterling and above: fine and middling sable-skins are without bellies, and the coarse ones are with them. Forty skins make a collection called *zimmer*. The finest sables are sold in pairs perfectly similar, and are dearer than single ones of the same goodness; for the Russians want those in pairs for facing caps, cloaks, tippets, &c. the blackest are reputed the best. Sables are in season from November to February; for those caught at any other time of the year are short-haired, and then called *nedosoboli*. The hair of sables differs in length and quality: the long hairs, which reach far beyond the inferior ones, are called *os*; the more a skin has of such long hairs, the blacker it is, and the more valuable is the fur; the very best have no other but those long and black hairs. *Motchka* is a technical term used in the Russian fur-trade, expressing the lower part of the long hairs; and sometimes it comprehends likewise the lower and shorter hairs: the above-mentioned best sable furs are said to have a black motchka. Below the long hairs are, in the greater part of the sable furs, some shorter hairs, called *podosie*, i. e. under-os; the more podosie a fur has, it is the less valuable: in the better kind of sables the podosie has black tips, and a gray or rusty motchka. The first kind of motchka makes the middling kind of sable furs; the red one the worst, especially if it has but few os. Between the os and podosie is a low woolly kind of hair, called *podsada*. The more podsada a fur has, the less valuable: for the long hair will, in such case, take no other direction than the natural one; for the characters of sable is, that notwithstanding the hair naturally lies from the head towards the tail, yet it will lie equally in any direction as you strike your hand over it. The various combinations of these characters, in regard to os, motchka, podosie, and podsada, make many special divisions in the goodness of furs: besides this, the furriers attend to the size, preferring always, *cæteris paribus*, the biggest, and those that have the greatest gloss. The size depends upon the animal being a male or a female, the latter being always smaller. The gloss vanishes in old furs: the fresh ones have a kind of bloomy appearance, as they express it; the old ones are said to have done blooming: the dyed sables always lose their gloss; become less uniform, whether the lower hairs have taken the dye or not; and commonly the hairs are somewhat twisted or crisped, and not so straight as in the natural ones. Some fumigate the skins, to make them look blacker; but the smell, and the crisped condition of the long hair, betrays the cheat; and both ways are detected by rubbing the fur with a moist linen cloth, which grows black in such cases.

"The Chinese have a way of dyeing the sables, so that the colour not only lasts (which the Russian cheats cannot do), but the fur keeps its gloss, and the crisped hairs only discover it. This is the reason that all the sables, which are of the best kind, either in pairs or separate, are carried to Russia; the rest go to China. The very best sables come from the environs of Nertchitsk and Yakutsk; and in this latter district, the country about the river Ud affords sometimes sables, of which one single fur is often sold at the rate of 60 or 70 rubles, 12*l.* or 14*l.* The bellies of sables, which are sold in pairs, are about two fingers breadth, and are tied together by 40 pieces, which are sold from 1*l.* to 2*l.* sterling. Tails are sold by the hundred. The very best sable furs must have their tails; but ordinary sables are often cropped, and 100 sold from 4*l.* to 8*l.* sterling. The legs or feet of sables are seldom sold separately; white sables are rare, and no common merchandize, but bought only as curiosities: some are yellowish, and are bleached in the spring on the snow."

Sable, in *Heraldry*, signifies black; and is borrowed from the French, as are most terms in this science: in engraving it is expressed by both horizontal and perpendicular lines crossing each other. Sable of itself signifies

nifies constancy, learning, and grief; and ancient heralds will have it, that when it is compounded with

Or.	it signifies	Honour.
Arg.		Fame.
Gul.		Respect.
Azu.		Application.
Ver.		Comfort.
Pur.		Austerity.

The occasion that introduced this colour into heraldry is thus related by Alexander Nisbet, p. 8. The duke of Anjou, king of Sicily, after the loss of that kingdom, appeared at a tournament in Germany all in black, with his shield of that tincture, *semé de larmes*, i. e. besprinkled with drops of water, to represent tears, indicating by that both his grief and loss.

SABLESTAN, or SABLUSTAN, a province of Asia, in Persia, on the frontiers of Indostan; bounded on the north by Khorasan; on the east, by the mountains of Balk and Candahar; on the south, by Sagestan or Segestan; and on the west, by Heri. It is a mountainous country, very little known to Europeans; nor is it certain which is the capital town.

SABRE, a kind of sword or scimitar, with a very broad and heavy blade, thick at the back, and a little falcated or crooked towards the point. It is the ordinary weapon worn by the Turks, who are said to be very expert in the use of it.

SABURRA, in *Medicine*, usually denotes any collection of half putrid indigested matter in the stomach and intestines, by which the operation of digestion is impeded.

SABURRÆ, GRITTS, in *Natural History;* a kind of stone, found in minute masses. They are of various colours, as stony and sparry gritts, of a bright or grayish white colour; red stony gritts; green stony gritts; yellow gritt; blackish gritts.

SACÆA, a feast which the ancient Babylonians and other orientals held annually in honour of the deity Anaitis. The Sacæa were in the East what the Saturnalia were at Rome, viz. a feast for the slaves. One of the ceremonies was to choose a prisoner condemned to death, and allow him all the pleasures and gratifications he would wish, before he were carried to execution.

SACCADE, in the manege, is a jerk more or less violent, given by the horseman to the horse, in pulling or twitching the reins of the bridle all on a sudden and with one pull, and that when a horse lies heavy upon the hand, or obstinately arms himself.

This is a correction used to make a horse carry well; but it ought to be used discreetly, and but seldom.

SACERDOTAL, something belonging to priests. See PRIEST.

SACCULUS, in *Anatomy*, a diminutive of saccus, signifies a little bag, and is applied to many parts of the body.

SACCHARUM, SUGAR, or the *Sugar-Cane*, a genus of plants belonging to the triandria class; and in the natural method ranking under the 4th order, *Gramina*. See BOTANY *Index*.

This plant is a native of Africa, the East Indies, and of Brazil; from whence it was introduced into our West India islands soon after they were settled. The sugar-cane is the glory and the pride of those islands. It amply rewards the industrious planter, enriches the British merchant, gives bread to thousands of manufacturers and seamen, and brings an immense revenue to the crown. For the process of making sugar, see SUGAR.

Sugar, formerly a luxury, is now become one of the necessaries of life. In crop-time every negro on the plantations, and every animal, even the dogs, grow fat. This sufficiently points out the nourishing and healthy qualities of sugar. It has been alleged, that the eating of sugar spoils the colour of, and corrupts, the teeth: this, however, proves to be a mistake, for no people on the earth have finer teeth than the negroes in Jamaica. Dr Alston, formerly professor of botany and materia medica at Edinburgh, endeavoured to obviate this vulgar opinion: he had a fine set of teeth, which he ascribed solely to his eating great quantities of sugar. Externally too it is often useful: mixed with the pulp of roasted oranges, and applied to putrid or ill-disposed ulcers, it proves a powerful corrector.

SACCHAROMETER, an instrument for ascertaining the value of worts, and the strength of different kinds of malt liquor. The name signifies a measure of sweetness. An instrument of this kind has been invented by a Mr Richardson of Hull, on the following principle. The menstruum or water employed by the brewer, becomes more dense by the addition of such parts of the materials as have been dissolved or extracted by, and thence incorporated with it: the operation of boiling, and its subsequent cooling, still adds to the density of it by evaporation; so that when it is submitted to the action of fermentation, it is denser than at any other period.

In passing through this natural operation, a remarkable alteration takes place. The fluid no sooner begins to ferment than its density begins to diminish; and as the fermentation is more or less perfect, the fermentable matter, whose accession has been traced by the increase of density, becomes more or less attenuated; and in place of every particle thus attenuated, a spirituous particle, of less density than water, is produced; so that when the liquor is again in a state of rest, it is so much specifically lighter than it was before, as the action of fermentation has been capable of attenuating the component parts of its acquired density; and if the whole were attenuated in this manner, the liquor would become lighter, or less dense than water, because the quantity of spirit produced from the fermentable matter, and occupying its place, would diminish the density of the water in some degree of proportion to that in which the latter has increased it.

SACHEVEREL, DR HENRY, a famous clergyman of the Tory faction in the reign of Queen Anne; who distinguished himself by indecent and scurrilous sermons and writings against the dissenters and revolution principles. He owed his consequence, however, to being indiscreetly prosecuted by the house of lords for his assize-sermon at Derby, and his 5th of November sermon at St Paul's in 1709; in which he asserted the doctrine of non-resistance to government in its utmost extent; and reflected severely on the act of toleration. The high and low church parties were very violent at that time; and the trial of Sacheverel inflamed the high-church party to dangerous riots and excesses: he was, however, suspended for three years, and his sermons burned by the common hangman. The Tories being in administration when Sacheverel's suspension expired, he

he was freed with every circumstance of honour and public rejoicing; was ordered to preach before the commons on the 29th of May, had the thanks of the house for his discourse, and obtained the valuable rectory of St Andrew's, Holborn.

SACK, a wine used by our ancestors, which some have taken to be Rhenish and some Canary wine.—Venner, in his *Via Recta ad Vitam Longam*, printed in 1628, says that sack is "completely not in the third degree, and that some affect to drink sack with sugar and some without; and upon no other ground, as I think, but as it is best pleasing to their palate." He goes on to say, "that sack, taken by itself, is very hot and very penetrative; being taken with sugar, the heat is both somewhat allayed, and the penetrative quality thereof also retarded." He adds farther, that Rhenish, &c. decline after a twelvemonth, but sack and the other stronger wines are best when they are two or three years old. It appears to be highly probable that sack was not a sweet wine, from its being taken with sugar, and that it did not receive its name from having a saccharine flavour, but from its being originally stored in sacks or borachios. It does not appear to have been a French wine, but a strong wine the production of a hot climate. Probably it was what is called dry mountain, or some Spanish wine of that kind. This conjecture is the more plausible, as Howell, in his French and English Dictionary, printed in the year 1650, translates sack by the words *vin d'Espagne, vin sec.*

Sack of Wool, a quantity of wool containing just 22 stones, and every stone 14 pounds. In Scotland, a sack is 24 stones, each stone containing 16 pounds.

Sack of Cotton Wool, a quantity from one hundred and a half to four hundred weight.

Sacks of Earth, in *Fortification*, are canvas bags filled with earth. They are used in making entrenchments in haste, to place on parapets, or the head of the breaches, &c. to repair them, when beaten down.

SACKBUT, a musical instrument of the wind kind, being a sort of trumpet, though different from the common trumpet both in form and size; it is fit to play a bass, and is contrived to be drawn out or shortened, according to the tone required, whether grave or acute. The Italians call it *trombone*, and the Latins *tuba ductilis.*

SACKVILLE, Thomas, *Lord Buckhurst and Earl of Dorset*, a statesman and poet, the son of Richard Sackville, Esq. of Buckhurst, in the parish of Withian in Sussex, was born in the year 1536. He was sent to Hart-hall in Oxford, in the latter end of the reign of Edward VI. whence he removed to Cambridge, where he took a master of arts degree, and thence to the Inner Temple. He now applied himself to the study of the law, and was called to the bar. We are told that he commenced poet whilst at the universities, and that these his juvenile productions were much admired, none of which, however, have been preserved.—In the fourth and fifth year of Queen Mary, we find him a member of the house of commons; about which time, in 1557, he wrote a poetical piece, entitled *The Induction*, or *The Mirror of Magistrates.* This last was meant to comprehend all the unfortunate Great from the beginning of our history; but the design being dropped, it was inserted in the body of the work. The Mirror of Magistrates is formed on a dramatic plan; in which the persons are introduced speaking. The Induction is written much in the style of Spencer, who, with some probability, is supposed to have imitated this author.

In 1561, his tragedy of Gorboduc was acted before Queen Elizabeth by the gentlemen of the Inner Temple. This was the first tolerable tragedy in our language. The Companion to the Playhouse tells us, that the three first acts were written by Mr Tho. Norton. Sir Philip Sidney, in his Apology for Poetry, says, "it is full of stately speeches, and well-sounding phrases, climbing to the height of Seneca in his style, &c." Rymer speaks highly in its commendation. Mr Spence, at the instigation of Mr Pope, republished it in 1736, with a pompous preface. It is said to be our first dramatic piece written in verse.

In the first parliament of this reign, Mr Sackville was member for Sussex, and for Bucks in the second. In the mean time he made the tour of France and Italy, and in 1566 was imprisoned at Rome, when he was informed of his father's death, by which he became possessed of a very considerable fortune.

Having now obtained his liberty, he returned to England; and being first knighted, was created Lord Buckhurst. In 1570 he was sent ambassador to France. In 1586 he was one of the commissioners appointed to try the unfortunate Mary Queen of Scots; and was the messenger employed to report the confirmation of her sentence, and to see it executed. The year following he went ambassador to the States General, in consequence of their complaint against the earl of Leicester; who, disliking his impartiality, prevailed on the queen to recal him, and confine him to his house. In this state of confinement he continued about 10 months, when Leicester dying, he was restored to favour, and in 1580 was installed knight of the Garter: but the most incontrovertible proof of the queen's partiality for Lord Buckhurst appeared in the year 1591, when she caused him to be elected chancellor in the university of Oxford, in opposition to her favourite Essex. In 1598, on the death of the treasurer Burleigh, Lord Buckhurst succeeded him, and by virtue of his office became in effect prime minister; and when, in 1601, the earls of Essex and Southampton were brought to trial, he sat as lord high steward on that awful occasion.

On the accession of James I. he was graciously received, had the office of lord high treasurer confirmed to him for life, and was created earl of Dorset. He continued in high favour with the king till the day of his death, which happened suddenly, on the 19th of April 1608, in the council chamber at Whitehall. He was interred with great solemnity in Westminster abbey. He was a good poet, an able minister, and an honest man. From him is descended the present noble family of the Dorsets. "It were needless (says Mr Walpole) to add, that he was the patriarch of a race of genius and wit."

Sackville, *Charles, earl of Dorset*, a celebrated wit and poet, descended from the foregoing, was born in 1637. He was, like Villiers, Rochester, Sedley, &c. one of the libertines of King Charles's court, and sometimes indulged himself in inexcusable excesses. He openly discountenanced the violent measures of James II. and engaged early for the prince of Orange, by whom he was made lord chamberlain of the household, and

taken

Sackville. Sacrament.

taken into the privy council. He died in 1706, and left several poetical pieces, which, though not considerable enough to make a volume by themselves, may be found among the works of the minor poets, published in 1749.

SACRAMENT is derived from the Latin word *sacramentum*, which signifies an oath, particularly the oath taken by soldiers to be true to their country and general. The words of this oath, according to Polybius, were, *obtemperaturus sum et facturus quicquid mandabitur ab imperatoribus juxta vires.* The word was adopted by the writers of the Latin church, and employed, perhaps with no great propriety, to denote those ordinances of religion by which Christians came under an obligation, equally sacred with that of an oath, to observe their part of the covenant of grace, and in which they have the assurance of Christ that he will fulfil his part of the same covenant.

Of sacraments, in this sense of the word, Protestant churches admit of but two; and it is not easy to conceive how a greater number can be made out from Scripture, if the definition of a sacrament be just which is given by the church of England. By that church, the meaning of the word sacrament is declared to be "an outward and visible sign of an inward and spiritual grace given unto us, ordained by Christ himself as a means whereby we receive the same, and a pledge to assure us thereof." According to this definition, baptism and the Lord's Supper are certainly sacraments; for each consists of an outward and visible sign of what is believed to be an inward and spiritual grace: both were ordained by Christ himself, and by the reception of each does the Christian come under a solemn obligation to be true to his divine master, according to the terms of the covenant of grace. (See BAPTISM and *SUPPER of the Lord.*) The Romanists, however, add to this number *confirmation*, *penance*, *extreme unction*, *ordination*, and *marriage*, holding in all seven sacraments; but two of those rites not being peculiar to the Christian church cannot possibly be *Christian* sacraments, in contradistinction to the sacraments or obligations into which men of all religions enter. Marriage was instituted from the beginning, when God made man male and female, and commanded them to be fruitful, and multiply and replenish the earth; and penance, as far as it is of the same import with repentance, has a place in all religions which teach that God is merciful, and men fallible.—The external severities imposed upon penitents by the church of Rome (see PENANCE) may indeed be in some respects peculiar to the discipline of that church, though the penances of the Hindoos are certainly as rigid; but none of these severities were ordained by Christ himself as the pledge of an inward and spiritual grace; nor do they, like baptism and the Lord's Supper, bring men under obligations which are supposed to be analogous to the meaning of the word *sacramentum*. Confirmation has a better title to the appellation of a sacrament than any of the other five popish rites of that name, though it certainly was not considered as such by the earliest writers of the Christian church, nor does it appear to have been ordained by Christ himself, (see CONFIRMATION.) Ordination is by many churches considered as a very important rite; but as it is not administered to *all* men, nor has any particular form appropriated to it in the New Testament, it cannot be considered as a Christian sacrament conferring grace generally necessary to salvation. It is rather a form of authorising certain persons to perform certain offices, which respect not themselves but the whole church; and extreme unction is a rite which took its rise from the miraculous powers of the primitive church vainly claimed by the succeeding clergy. (See ORDINATION and *Extreme UNCTION.*) These considerations seem to have some weight with the Romish clergy themselves; for they call the eucharist, by way of eminence, the *holy sacrament*. Thus to expose the holy sacrament, is to lay the consecrated host on the altar to be adored.—The procession of the holy sacrament is that in which this host is carried about the church, or about a town.

Sacrament || Sacre.

Numerous as we think the sacraments of the Romish church, a sect of Christians sprung up in England early in the current century who increased their number.—The founder of this sect was a Dr Deacon, we think, of Manchester, where the remains of it subsisted very lately, and probably do so at present. According to these men, every *rite* and every *phrase* in the book called the *Apostolical Constitutions* were certainly in use among the apostles themselves. Still, however, they make a distinction between the greater and the lesser sacraments. The greater sacraments are only two, Baptism and the Lord's Supper. The lesser are no fewer than ten, viz. five belonging to baptism, *exorcism*, *anointing with oil*, *the white garment*, *a taste of milk and honey*, and *anointing with chrism* or *ointment*. The other five are, *the sign of the cross*, *imposition of hands*, *unction of the sick*, *holy orders*, and *matrimony*. Of the nature of these lesser sacraments, or the grace which they are supposed to confer, our limits will permit us to give no account.—Nor is it necessary that we should. The sect which taught them, if not extinguished, is certainly in its last wane. It has produced, however, one or two learned men; and its founder's Full, True, and Comprehensive View of Christianity, in two Catechisms, is a work which the Christian antiquary will read with pleasure for information, and the philosopher for the materials which it contains for meditation on the workings of the human mind. It was published in 8vo, in the year 1748.

Congregation of the Holy SACRAMENT, a religious establishment formed in France, whose founder was Autherius, bishop of Bethlehem, and which, in 1644, received an order from Urban VIII. to have always a number of ecclesiastics ready to exercise their ministry among pagan nations, wherever the pope, or congregation *de propaganda*, should appoint.

SACRAMENTARIANS, a general name given to all such as have published or held erroneous doctrines of the sacrament of the Lord's Supper. The term is chiefly applied among Roman Catholics, by way of reproach, to the Lutherans, Calvinists, and other Protestants.

SACRAMENTARY, an ancient Romish church-book, which contains all the prayers and ceremonies practised at the celebration of the sacraments.

It was wrote by Pope Gelasius, and afterwards revised, corrected, and abridged, by St Gregory.

SACRE, or SAKER, in *Ornithology*, the name of a species of falcon, called by authors *falco sacer*, and differently described by different authors, but by all agreed to be an extremely bold and active bird. It is a native of

of the northern regions of Europe; and a variety, called by some writers the *speckled partridge hawk*, is found at Hudson's bay, North America.

SACRED, something holy, or that is solemnly offered and consecrated to God, with benedictions, unctions, &c.

Kings, prelates, and priests, are reckoned sacred persons; abbots are only blessed.—The deaconhood, sub-deaconhood, and priesthood, are all sacred orders, and are said to impress a sacred indelible character. The custom of consecrating kings with holy oil is derived (says Gutlingius) from the Hebrews; among whom, he agrees with Grotius, it was never used but to kings who had not an evident right by succession. He adds, that the Christian emperors never used it before Justin the younger; from whom he takes it to have passed to the Goths, &c.

SACRED is also applied to things belonging to God and the church. Church-lands, ornaments, &c. are held sacred.—The sacred college is that of the cardinals.

SACRED Majesty, is applied to the emperor and to the king of England; yet Loyseau says it is blasphemy. See MAJESTY. The ancients held a place struck with thunder as sacred. In the civil law, sacred place chiefly denotes that where a person deceased has been interred.

SACRED Elixir. See ELIXIR.

SACRIFICE, an offering made to God on an altar, by means of a regular minister, as an acknowledgement of his power, and a payment of homage. Sacrifices (though the term is sometimes used to comprehend all the offerings made to God, or in any way devoted to his service and honour) differ from mere oblations in this, that in a sacrifice there is a real destruction or change of the thing offered; whereas an oblation is only a simple offering or gift, without any such change at all: thus, all sorts of tythes, and first fruits, and whatever of men's worldly substance is consecrated to God, for the support of his worship and the maintenance of his ministers, are offerings or oblations; and these, under the Jewish law, were either of living creatures or other things: but sacrifices, in the more peculiar sense of the term, were either wholly or in part consumed by fire. They have by divines been divided into bloody and unbloody. Bloody sacrifices were made of living creatures; unbloody of the fruits of the earth. They have also been divided into *expiatory*, *impetratory*, and *eucharistical*. The first kind were offered to obtain of God forgiveness of sins; the second, to procure some favour; and the third, to express thankfulness for favours already received. Under one or other of these heads may all sacrifices be arranged; though we are told, that the Egyptians had 666 different kinds, a number surpassing all credibility.

Concerning the origin of sacrifices very various opinions have been held. By many, the Phœnicians are supposed to have been the authors of them; though Porphyry attributes their invention to the Egyptians; and Ovid imagines, from the import of the name *victim* and *hostia*, that no bloody sacrifices were offered till wars prevailed in the world, and nations obtained victories over their enemies. These are mere hypotheses contradicted by the most authentic records of antiquity, and entitled to no regard.

By modern deists, sacrifices are said to have had their origin in superstition, which operates much in the same way in every country. It is therefore weak, according to those men, to derive this practice from any particular people; since the same mode of reasoning would lead various nations, without any intercourse with each other, to entertain the same opinions respecting the nature of their gods, and the proper means of appeasing their anger. Men of gross conceptions imagine their deities to be like themselves, covetous and cruel. They are accustomed to appease an injured neighbour by a composition in money; and they endeavour to compound in the same manner with their gods, by rich offerings to their temples and to their priests. The most valuable property of a simple people is their cattle. These offered in sacrifice are supposed to be fed upon by the divinity, and are actually fed upon by his priests. If a crime is committed which requires the punishment of death, it is accounted perfectly fair to appease the deity by offering one life for another; because, by savages, punishment is considered as a debt for which a man may compound in the best way that he can, and which one man may pay for another. Hence, it is said, arose the absurd notions of imputed guilt and vicarious atonement. Among the Egyptians, a white bull was chosen as an expiatory sacrifice to their god Apis. After being killed at the altar, his head was cut off, and cast into the river, with the following execration: "May all the evils impending over those who perform this sacrifice, or over the Egyptians in general, be averted on this head." *

* *Herodotus*, lib. ii.

Had sacrifice never prevailed in the world but among such gross idolaters as worshipped departed heroes, who were supposed to retain in their state of deification all the passions and appetites of their mortal state, this account of the origin of that mode of worship would have been to us perfectly satisfactory. We readily admit, that such mean notions of their gods may have actually led far distant tribes, who could not derive any thing from each other through the channel of tradition, to imagine that beings of human passions and appetites might be appeased or bribed by costly offerings. But we know from the most incontrovertible authority, that sacrifices of the three kinds that we have mentioned were in use among people who worshipped the true God, and who must have had very correct notions of his attributes. Now we think it impossible that such notions could have led any man to fancy that the taking away of the life of a harmless animal, or the burning of a cake or other fruits of the earth in the fire, would be acceptable to a Being self-existent, omnipotent, and omniscient, who can neither be injured by the crimes of his creatures, nor receive any accession of happiness from a thousand worlds.

Sensible of the force of such reasoning as this, some persons of great name, who admit the authenticity of the Jewish and Christian scriptures, and firmly rely on the atonement made by Christ, are yet unwilling (it is difficult to conceive for what reason) to allow that sacrifices were originally instituted by God. Of this way of thinking were St Chrysostom, Spencer, Grotius, and Warburton, as were likewise the Jews Maimonides, R. Levi, Ben Gerson, and Abarbanel. The greater part of these writers maintain, that sacrifices were at first a human institution; and that God, in order to prevent their

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their being offered to idols, introduced them into his service, though he did not approve of them as good in themselves, or as proper rites of worship. That the infinitely wise and good God should introduce into his service improper rites of worship, appears to us so extremely improbable, that we cannot but wonder how such an opinion should ever have found its way into the minds of such men as those who held it. Warburton's theory of sacrifice is much more plausible, and being more lately published, is worthy of particular examination.

According to this ingenious prelate, sacrifices had their origin in the sentiments of the human heart, and in the ancient mode of conversing by action in aid of words. Gratitude to God for benefits received is natural to the mind of man, as well as his bounden duty. "This duty (says the bishop *) was in the most early times discharged in expressive actions, the least equivocal of which was the offerer's bringing the first fruits of pasturage or agriculture to that sequestered place where the Deity used to be more solemnly invoked, at the stated times of public worship; and there presenting them in homage, with a demeanor which spoke to this purpose—'I do hereby acknowledge thee, O my God! to be the author and giver of all good: and do now, with humble gratitude, return my warmest thanks for these thy blessings particularly bestowed upon me."—Things thus devoted became thenceforth sacred: and to prevent their *desecration*, the readiest way was to send them to the table of the priest, or to consume them in the fire of the altar. Such, in the opinion of our author, was the origin of eucharistical sacrifices. *Impetratory* or *precative* sacrifices had, he thinks, the same origin, and were contrived to express by action an invocation for the continuance of God's favour. "Expiatory sacrifices (says the learned prelate) were in their own nature as intelligible, and in practice as rational, as either of the other two. Here, instead of presenting the first fruits of agriculture and pasturage, in corn, wine, oil, and wool, as in the eucharistical, or a portion of what was to be sown or otherwise propagated, as in the *impetratory*, some chosen animal, precious to the repenting criminal who deprecates, or supposed to be obnoxious to the Deity who is to be appeased, was offered up and slain at the altar, in an action which, in all languages, when translated into words, speaks to this purpose:—'I confess my transgressions at thy footstool, O my God! and with the deepest contrition implore thy pardon; confessing that I deserve death for those my offences.'—The latter part of the confession was more forcibly expressed by the *action* of striking the devoted animal, and depriving it of life; which, when put into words, concluded in this manner.—'And I own that I myself deserve the death which I now inflict on this animal.'"

* *Divine Leg.* b. ix. c. 2.

This system of sacrifice, which his lordship thinks so well supported by the most early movements of simple nature, we admit to be ingenious, but by no means satisfactory. That mankind in the earlier ages of the world were accustomed to supply the deficiencies of their language by expressive gesticulations we are not inclined to controvert: the custom prevails among savage nations, or nations half civilized, at the present day. His lordship, however, is of opinion, and we heartily agree with him, that our first parents were instructed by God to make articulate sounds significant of ideas, notions, and things (see LANGUAGE, N° 6.), and not left to fabricate a language for themselves. That this heaven-taught language could be at first copious, no man will suppose, who thinks of the paucity of ideas which those who spoke it had to express; but when we consider its origin, we cannot entertain a doubt but that it was precise and perspicuous, and admirably adapted to all the real purposes of life. Among these purposes must surely be included the worship of God as the most important of all. Every sentiment therefore which enters into worship, gratitude, invocation, confession, and deprecation, the progenitors of mankind were undoubtedly taught to clothe in words the most significant and unequivocal; but we know from Moses, whose divine legation the bishop surely admitted, that Cain and Abel, the eldest children of our first parents, worshipped God by the rites of sacrifice: and can we suppose that this practice occurred to *them* from their having so far forgotten the language taught them by their father, as to be under the necessity of denoting by action what they could not express by words? If this supposition be admitted, it will force another upon us still more extravagant. Even Adam himself must, in that case, have become dumb in consequence of his fall; for it is not conceivable, that as long as he was able to utter articulate sounds, and affix a meaning to them, he would cease, in the presence of his family, to confess his sins, implore forgiveness, and express his gratitude to God for all his mercies.

The right reverend writer, as if aware of some such objection as this to his theory, contends, that if sacrifices had arisen from any other source than the light of reason, the Scripture would not have been silent concerning that source; "especially since we find Moses carefully recording what *God* immediately, and not *nature*, taught to Adam and his family. Had the original of sacrifice, says he, been prescribed, and directly commanded by the Deity, the sacred historian could never have omitted the express mention of that circumstance. The two capital observances in the Jewish ritual were the SABBATH and SACRIFICES. To impress the highest reverence and veneration on the *Sabbath*, he is careful to record its divine original: and can we suppose that had sacrifices had the same original, he would have neglected to establish this truth at the time that he recorded the other, since it is of equal use and of equal importance? I should have said, indeed, of much greater; for the multifarious *sacrifices* of the LAW had not only a reference to the *forfeiture* of Adam, but likewise prefigured our redemption by Jesus Christ."

But all this reasoning was foreseen, and completely answered before his lordship gave it to the public. It is probable, that though the distinction of weeks was well known over all the eastern world, the Hebrews, during their residence in Egypt, were very negligent in their observance of the Sabbath. To enforce a religious observance of that sacred day, it became necessary to inform them of the time and occasion of its first institution, that they might keep it holy in memory of the creation; but, in a country like Egypt, the people were in danger of holding sacrifices rather in too high than too low veneration, so that there was not the same necessity for mentioning explicitly the early institution of

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of them. It was sufficient that they knew the divine institution of their own sacrifices, and the purposes for which they were offered. Besides this, there is reason to believe, that, in order to guard the Hebrews from the infections of the heathen, the rite of sacrificing was loaded with many additional ceremonies at its second institution under Moses. It might, therefore, be improper to relate its original simplicity to a rebellious people, who would think themselves ill-used by any additional burdens of trouble or expense, however really necessary to their happiness. Bishop Warburton sees clearly the necessity of concealing from the Jews the spiritual and refined nature of the Christian dispensation, lest such a backsliding people should, from the contemplation of it, have held in contempt their own economy. This, he thinks, is the reason why the prophets, speaking of the reign of the Messiah, borrow their images from the Mosaic dispensation, that the people living under that dispensation might not despise it from perceiving its end; and we think the reason will hold equally good for their lawgiver concealing from them the simplicity of the first sacrifices, lest they should be tempted to murmur at their own multifarious ritual.

But his lordship thinks that sacrifices had their origin from the light of natural reason. We should be glad to know what light natural reason can throw upon such a subject. That ignorant pagans, adoring as gods departed heroes, who still retained their sensual appetites, might naturally think of appeasing such beings with the fat of fed beasts, and the perfumes of the altar, we have already admitted; but that Cain and Abel, who knew that the God whom they adored has neither body, parts, nor passions; that he created and sustains the universe; and that from his very nature he must will the happiness of all his creatures, should be led by the light of natural reason to think of appeasing him, or obtaining favours from him, by putting to death harmless animals, is a position, which no arguments of his lordship can ever compel us to admit. That Abel's sacrifice was indeed accepted, we know; but it was not accepted because it proceeded from the movements of the human mind, and the deficiency of the original language, but because it was offered through *faith*. The light of natural reason, however, does not generate faith, but science; and when it fails of that, its offspring is absurdity. "Faith is the substance of things hoped for, the evidence of things not seen," and comes not by reasoning but by hearing. What things then were they of which Abel had heard, for which he hoped, and in the faith of which he offered sacrifice? Undoubtedly it was a restoration to that immortality which was forfeited by the trangression of his parents. Of such redemption, an obscure intimation had been given to Adam, in the promise that the seed of the woman should bruise the head of the serpent; and it was doubtless to impress upon his mind in more striking colours the manner in which this was to be done, that bloody sacrifices were first instituted.* As long as the import of such rites was thus understood, they constituted a perfectly rational worship, as they showed the people that the wages of sin is death; but when men sunk into idolatry, and lost all hopes of a resurrection from the dead, the slaughtering of animals to appease their deities was a practice grossly superstitious. It rested in itself without pointing to any farther end, and the grovelling worshippers believed that by their sacrifices they purchased the favour of their deities. When once this notion was entertained, human sacrifices were soon introduced; for it naturally occurred to those who offered them, that what they most valued themselves, would be most acceptable to their offended gods. (see the next article.) By the Jewish law, these abominable offerings were strictly forbidden, and the whole ritual of sacrifice restored to its original purity, though not simplicity.

* See *Prophecy.*

All Christian churches, the Socinian, if it can be called a church, not excepted, have till very lately agreed in believing that the Jewish sacrifices served, amongst other uses, for types of the death of Christ and the Christian worship, (see TYPE.) In this belief all sober Christians agree still, whilst many are of opinion that they were likewise fœderal rites, as they certainly were considered by the ancient Romans.*

* *Tit. Liv.* lib. xxi. cap. 45.

Of the various kinds of Jewish sacrifices, and the subordinate ends for which they were offered, a full account is given in the books of Moses. When an Israelite offered a loaf or a cake, the priest broke it in two parts; and setting aside that half which he reserved for himself, broke the other into crumbs, poured oil, wine, incense, and salt upon it, and spread the whole upon the fire of the altar. If these offerings were accompanied with the sacrifice of an animal, they were thrown upon the victim to be consumed along with it. If the offerings were of the ears of new corn, they were parched at the fire, rubbed in the hand, and then offered to the priest in a vessel, over which he poured oil, incense, wine, and salt, and then burnt it upon the altar, having first taken as much of it as of right belonged to himself.

The principal sacrifices among the Hebrews consisted of bullocks, sheep, and goats; but doves and turtles were accepted from those who were not able to bring the other: these beasts were to be perfect, and without blemish. The rites of sacrificing were various; all of which are minutely described in the books of Moses.

The manner of sacrificing among the Greeks and Romans was as follows. In the choice of the victim, they took care that it was without blemish or imperfection; its tail was not to be too small at the end; the tongue not black, nor the ears cleft; and that the bull was one that had never been yoked. The victim being pitched upon, they gilt his forehead and horns, especially if a bull, heifer, or cow. The head they also adorned with a garland of flowers, a woollen infula or holy fillet, whence hung two rows of chaplets with twisted ribands; and on the middle of the body a kind of stole, pretty large, hung down on each side: the lesser victims were only adorned with garlands and bundles of flowers, together with white tufts or wreaths.

The victims thus prepared were brought before the altar; the lesser being driven to the place, and the greater led by an halter; when, if they made any struggle, or refused to go, the resistance was taken for an ill omen, and the sacrifice frequently set aside. The victim thus brought was carefully examined, to see that there was no defect in it; then the priest, clad in his sacerdotal habit, and accompanied with the sacrificers and

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and other attendants, and being washed and purified according to the ceremonies prescribed, turned to the right hand, and went round the altar, sprinkling it with meal and holy water, and also besprinkling those who were present. Then the crier proclaimed with a loud voice, Who is here? To which the people replied, Many and good. The priest then having exhorted the people to join with him by saying, Let us pray, confessed his own unworthiness, acknowledging that he had been guilty of divers sins; for which he begged pardon of the gods, hoping that they would be pleased to grant his requests, accept the oblations offered them, and send them all health and happiness; and to this general form added petitions for such particular favours as were then desired. Prayers being ended, the priest took a cup of wine; and having tasted it himself, caused his assistants to do the like; and then poured forth the remainder between the horns of the victim. Then the priest or the crier, or sometimes the most honourable person in the company, killed the beast, by knocking it down or cutting its throat. If the sacrifice was in honour of the celestial gods, the throat was turned up towards heaven, but if they sacrificed to the heroes or infernal gods, the victim was killed with its throat towards the ground. If by accident the beast escaped the stroke, leaped after it, or expired with pain and difficulty, it was thought to be unacceptable to the gods. The beast being killed, the priest inspected its entrails, and made predictions from them. They then poured wine, together with frankincense, into the fire, to increase the flame, and then laid the sacrifice on the altar; which in the primitive times was burnt whole to the gods, and thence called an *holocaust;* but in after-times, only part of the victim was consumed in the fire, and the remainder reserved for the sacrificers; the thighs, and sometimes the entrails, being burnt to their honour, the company feasted upon the rest. During the sacrifice, the priest, and the person who gave the sacrifice, jointly prayed, laying their hand upon the altar. Sometimes they played upon musical instruments in the time of the sacrifice, and on some occasions they danced round the altar, singing sacred hymns in honour of the god.

Human Sacrifices, an abominable practice, about the origin of which different opinions have been formed.—The true account seems to be that which we have given in the preceding article. When men had gone so far as to indulge the fancy of bribing their gods by sacrifice, it was natural for them to think of enhancing the value of so cheap an *atonement* by the cost and rarity of the offering; and, oppressed with their malady, they never rested till they had got that which they conceived to be the most precious of all, a human sacrifice. "It was customary (says Sanchoniathon),* in ancient times, in great and public calamities, before things became incurable, for princes and magistrates to offer up in sacrifice to the avenging dæmons the dearest of their offspring." Sanchoniathon wrote of Phœnicia, but the practice prevailed in every nation under heaven of which we have received any ancient account. The Egyptians had it in the early part of their monarchy. The Cretans likewise had it, and retained it for a long time.—The nations of Arabia did the same. The people of Dumah, in particular, sacrificed every year a child, and buried it underneath an altar, which they made use of instead of an idol; for they did not admit of images. The Persians buried people alive. Amestris, the wife of Xerxes, entombed 12 persons quick under ground for the good of her soul. It would be endless to enumerate every city, or every province, where these dire practices obtained. The Cyprians, the Rhodians, the Phoceans, the Ionians, those of Chios, Lesbos, Tenedos, all had human sacrifices. The natives of the Tauric Chersonesus, offered up to Diana every stranger whom chance threw upon their coast. Hence arose that just expostulation in Euripides upon the inconsistency of the proceeding; wherein much good reasoning is implied. Iphigenia wonders, as the goddess delighted in the blood of men, that every villain and murderer should be privileged to escape, nay, be driven from the threshold of the temple; whereas, if an honest and virtuous man chanced to stray thither, he only was seized upon, and put to death. The Pelasgi, in a time of scarcity, vowed the tenth of all that should be born to them for a sacrifice, in order to procure plenty. Aristomenes the Messenian slew 300 noble Lacedæmonians, among whom was Theopompus the king of Sparta, at the altar of Jupiter at Ithome. Without doubt the Lacedæmonians did not fail to make ample returns; for they were a severe and revengeful people, and offered the like victims to Mars. Their festival of the Diamastigosis is well known; when the Spartan boys were whipped in the sight of their parents with such severity before the altar of Diana Orthia, that they often expired under the torture. Phylarchus affirms, as he is quoted by Porphyry, that of old every Grecian state made it a rule, before they marched towards an enemy, to solicit a blessing on their undertakings by human victims.

The Romans were accustomed to the like sacrifices. They both devoted themselves to the infernal gods, and constrained others to submit to the same horrid doom. Hence we read in Titus Livius, that, in the consulate of Æmilius Paulus and Terentius Varro, two Gauls, a man and a woman, and two in like manner of Greece, were buried alive at Rome in the Ox-market, where was a place under ground walled round, to receive them; which had before been made use of for such cruel purposes. He says it was a sacrifice not properly Roman, that is, not originally of Roman institution; yet it was frequently practised there, and that too by public authority. Plutarch makes mention of a like instance a few years before, in the consulship of Flaminius and Furius. There is reason to think, that all the principal captives who graced the triumphs of the Romans, were at the close of that cruel pageantry put to death at the altar of Jupiter Capitolinus. Caius Marius offered up his own daughter for a victim to the Dii Averrunci, to procure success in a battle against the Cimbri; as we are informed by Dorotheus, quoted by Clemens. It is likewise attested by Plutarch, who says that her name was *Calpurnia*. Marius was a man of a sour and bloody disposition; and had probably heard of such sacrifices being offered in the enemy's camp, among whom they were very common, or he might have beheld them exhibited at a distance: and therefore murdered what was nearest, and should have been dearest to him, to counteract their fearful spells, and outdo them in their wicked machinery. Cicero making mention of this custom being common in Gaul, adds,

* *Apud Euseb. Praep. Evang.* lib. 4.

Sacrifice. adds, that it prevailed among that people even at the time he was speaking; from whence we may be led to infer, that it was then discontinued among the Romans. And we are told by Pliny, that it had then, and not very long, been discouraged. For there was a law enacted, when Lentulus and Crassus were consuls, so late as the 657th year of Rome, that there should be no more human sacrifices: for till that time those horrid rites had been celebrated in broad day without any mask or controul; which, had we not the best evidence for the fact, would appear scarcely credible. And however they may have been discontinued for a time, we find that they were again renewed; though they became not so public, nor so general. For not very long after this, it is reported of Augustus Cæsar, when Perusia surrendered in the time of the second triumvirate, that besides multitudes executed in a military manner, he offered up, upon the ides of March, 300 chosen persons, both of the equestrian and senatorial order, at an altar dedicated to the manes of his uncle Julius. Even at Rome itself this custom was revived: and Porphyry assures us, that in his time a man was every year sacrificed at the shrine of Jupiter Latialis. Heliogabalus offered the like victims to the Syrian deity which he introduced among the Romans. The same is said of Aurelian.

The Gauls and the Germans were so devoted to this shocking custom, that no business of any moment was transacted among them without being prefaced with the blood of men. They were offered up to various gods; but particularly to Hesus, Taranis, and Thautates. These deities are mentioned by Lucan, where he enumerates the various nations who followed the fortunes of Cæsar.

The altars of these gods were far removed from the common resort of men; being generally situated in the depth of woods, that the gloom might add to the horror of the operation, and give a reverence to the place and proceeding. The persons devoted were led thither by the Druids, who presided at the solemnity, and performed the cruel offices of the sacrifice. Tacitus takes notice of the cruelty of the Hermunduri, in a war with the Catti, wherein they had greatly the advantage; at the close of which they made one general sacrifice of all that was taken in battle. The poor remains of the legion under Varus suffered in some degree the same fate. There were many places destined for this purpose all over Gaul and Germany; but especially in the mighty woods of Arduenna, and the great Hercynian forest; a wild that extended above 30 days journey in length. The places set apart for this solemnity were held in the utmost reverence, and only approached at particular seasons. Lucan mentions a grove of this sort near Massilia, which even the Roman soldiers were afraid to violate, though commanded by Cæsar. It was one of those set apart for the sacrifices of the country.

Claudian compliments Stilicho, that, among other advantages accruing to the Roman armies through his conduct, they could now venture into the awful forest of Hercynia, and follow the chase in those so much dreaded woods, and otherwise make use of them.

These practices prevailed among all the people of the north, of whatever denomination. The Massagetæ, the Scythians, the Getes, the Sarmatians, all the various nations upon the Baltic, particularly the Suevi and Scandinavians, held it as a fixed principle, that their happiness and security could not be obtained but at the expense of the lives of others. Their chief gods were Thor and Woden, whom they thought they could never sufficiently glut with blood. They had many very celebrated places of worship; especially in the island Rugen, near the mouth of the Oder; and in Zeeland: some, too, very famous among the Semnones and Naharvalli. But the most reverenced of all, and the most frequented, was at Upsal; where there was every year a grand celebrity, which continued for nine days. During this term they sacrificed animals of all sorts: but the most acceptable victims, and the most numerous, were men. Of these sacrifices none were esteemed so auspicious and salutary as a sacrifice of the prince of the country. When the lot fell for the king to die, it was received with universal acclamations and every expression of joy; as it once happened in the time of a famine, when they cast lots, and it fell to King Domalder to be the people's victim: and he was accordingly put to death. Olaus Tretelger, another prince, was burnt alive to Woden. They did not spare their own children. Harald the son of Gunild, the first of that name, slew two of his children to obtain a storm of wind. "He did not let (says Verstegan) to sacrifice two of his sons unto his idols, to the end he might obtain of them such a tempest at sea, as should break and disperse the shipping of Harald king of Denmark." Saxo-Grammaticus mentions a like fact. He calls the king Haquin; and speaks of the persons put to death as two very hopeful young princes. Another king slew nine sons to prolong his own life; in hopes, perhaps, that what they were abridged of would in great measure be added to himself. Such instances, however, occur not often: but the common victims were without end. Adam Bremensis, speaking of the awful grove at Upsal, where these horrid rites were celebrated, says, that there was not a single tree but what was reverenced, as if it were gifted with some portion of divinity: and all this because they were stained with gore, and foul with human putrefaction. The same is observed by Scheiffer in his account of this place.

The manner in which the victims were slaughtered, was diverse in different places. Some of the Gaulish nations chined them with a stroke of an axe. The Celtæ placed the man who was to be offered for a sacrifice upon a block, or an altar, with his breast upwards, and with a sword struck him forcibly across the sternum: then tumbling him to the ground, from his agonies and convulsions, as well as from the effusion of blood, they formed a judgment of future events. The Cimbri ripped open the bowels; and from them they pretended to divine. In Norway they beat men's brains out with an ox-yoke. The same operation was performed in Iceland, by dashing them against an altar of stone. In many places they transfixed them with arrows. After they were dead, they suspended them upon trees, and left them to putrefy. One of the writers above quoted mentions, that in his time 70 carcases of this sort were found in a wood of the Suevi. Dithmar of Mersburgh, an author of nearly the same age, speaks of a place called *Ledur* in Zeeland, where there were every year 99 persons sacrificed to the god Swantowite. During these bloody festivals a general joy prevailed, and banquets

Sacrifice. banquets were most royally served. They fed, caroused, and gave a loose to indulgence, which at other times was not permitted. They imagined that there was something mysterious in the number nine: for which reason these feasts were in some places celebrated every ninth year, in others every ninth month; and continued for nine days. When all was ended, they washed the image of the deity in a pool; and then dismissed the assembly. Their servants were numerous, who attended during the term of their feasting, and partook of the banquet. At the close of all, they were smothered in the same pool, or otherwise made away with. On which Tacitus remarks, how great an awe this circumstance must necessarily infuse into those who were not admitted to these mysteries.

These accounts are handed down from a variety of authors in different ages; many of whom were natives of the countries which they describe, and to which they seem strongly attached. They would not therefore have brought so foul an imputation on the part of the world in favour of which they were each writing, nor could there be that concurrence of testimony, were not the history in general true.

The like custom prevailed to a great degree at Mexico, and even under the mild government of the Peruvians; and in most parts of America. In Africa it is still kept up; where, in the inland parts, they sacrifice some of the captives taken in war to their fetiches, in order to secure their favour. Snelgrave was in the king of Dahoome's camp, after his inroad into the countries of Ardra and Whidaw; and says, that he was a witness to the cruelty of this prince, whom he saw sacrifice multitudes to the deity of his nation.

The same abominable worship is likewise practised occasionally in the islands visited by Captain Cook, and other circumnavigators, in the South sea. It seems indeed to have prevailed in every country at one period of the progress of civilization, and undoubtedly had the origin which we have assigned to it.

The sacrifices of which we have been treating, if we except some few instances, consisted of persons doomed by the chance of war, or assigned by lot, to be offered. But among the nations of Canaan, the victims were peculiarly chosen. Their own children, and whatever was nearest and dearest to them, were deemed the most worthy offering to their god. The Carthaginians, who were a colony from Tyre, carried with them the religion of their mother-country, and instituted the same worship in the parts where they settled. It consisted in the adoration of several deities, but particularly of Kronus; to whom they offered human sacrifices, and especially the blood of children. If the parents were not at hand to make an immediate offer, the magistrates did not fail to make choice of what was most fair and promising, that the god might not be defrauded of his dues. Upon a check being received in Sicily, and some other alarming circumstances happening, Hamilcar without any hesitation laid hold of a boy, and offered him on the spot to Kronus; and at the same time drowned a number of priests, to appease the deity of the sea. The Carthaginians another time, upon a great defeat of their army by Agathocles, imputed their miscarriages to the anger of this god, whose services had been neglected. Touched with this, and seeing the enemy at their gates, they seized at once 300 children of the prime nobility, and offered them in public for a sacrifice. Three hundred more, being persons who were somehow obnoxious, yielded themselves voluntarily, and were put to death with the others. The neglect of which they accused themselves, consisted in sacrificing children purchased of parents among the poorer sort, who reared them for that purpose, and not selecting the most promising, and the most honourable, as had been the custom of old. In short, there were particular children brought up for the altar, as sheep are fattened for the shambles; and they were bought and butchered in the same manner. But this indiscriminate way of proceeding was thought to have given offence. It is remarkable, that the Egyptians looked out for the most specious and handsome person to be sacrificed. The Albanians pitched upon the best man of the community, and made him pay for the wickedness of the rest. The Carthaginians chose what they thought the most excellent, and at the same time the most dear to them; which made the lot fall heavy upon their children. This is taken notice of by Silius Italicus in his fourth book.

Kronus, to whom these sacrifices were exhibited, was an oriental deity, the god of light and fire; and therefore always worshipped with some reference to that element. See PHŒNICIA.

The Greeks, we find, called the deity to whom these offerings were made *Agraulos;* and feigned that she was a woman, and the daughter of Cecrops. But how came Cecrops to have any connexion with Cyprus? Agraulos is a corruption and transposition of the original name, which should have been rendered *Uk El Aur*, or *Uk El Aurus;* but has, like many other oriental titles and names, being strangely sophisticated, and is here changed to Agraulos. It was in reality the god of light, who was always worshipped with fire. This deity was the Moloch of the Tyrians and Canaanites, and the Melech of the east; that is, the great and principal god, the god of light, of whom fire was esteemed a symbol; and at whose shrine, instead of viler victims, they offered the blood of men.

Such was the Kronus of the Greeks, and the Moloch of the Phœnicians: and nothing can appear more shocking than the sacrifices of the Tyrians and Carthaginians, which they performed to this idol. In all emergencies of state, and times of general calamity, they devoted what was most necessary and valuable to them for an offering to the gods, and particularly to Moloch. But besides these undetermined times of bloodshed, they had particular and prescribed seasons every year, when children were chosen out of the most noble and reputable families, as before mentioned. If a person had an only child, it was the more liable to be put to death, as being esteemed more acceptable to the deity, and more efficacious for the general good. Those who were sacrificed to Kronus were thrown into the arms of a molten idol, which stood in the midst of a large fire, and was red with heat. The arms of it were stretched out, with the hands turned upwards, as it were to receive them; yet sloping downwards, so that they dropt from thence into a glowing furnace below. To other gods they were otherwise slaughtered, and, as it is implied, by the very hands of their parents. What can be more horrid to the imagination, than to suppose a father leading the dearest of all his sons to such an infernal shrine?

shrine? or a mother the most engaging and affectionate of her daughters, just rising to maturity, to be slaughtered at the altar of Ashtaroth or Baal? Justin describes this unnatural custom very pathetically: *Quippe homines, ut victimas, immolabant; et impuberes (quæ ætas hostium misericordiam provocat) aris admovebant; pacem sanguine eorum exposcentes, pro quorum vitâ Dii rogari maxime solent.* Such was their blind zeal, that this was continually practised; and so much of natural affection still left unextinguished, as to render the scene ten times more shocking, from the tenderness which they seemed to express. They embraced their children with great fondness, and encouraged them in the gentlest terms, that they might not be appalled at the sight of the hellish process; begging of them to submit with cheerfulness to this fearful operation. If there was any appearance of a tear rising, or a cry unawares escaping, the mother smothered it with her kisses, that there might not be any show of backwardness or constraint, but the whole be a free-will offering. These cruel endearments over, they stabbed them to the heart, or otherwise opened the sluices of life; and with the blood warm, as it ran, besmeared the altar and the grim visage of the idol. These were the customs which the Israelites learned of the people of Canaan, and for which they are upbraided by the Psalmist: "They did not destroy the nations, concerning whom the Lord commanded them; but were mingled among the heathen, and learned their works: yea, they sacrificed their sons and their daughters unto devils, and shed innocent blood, even the blood of their sons and of their daughters, whom they sacrificed unto the idols of Canaan; and the land was polluted with blood. Thus were they defiled with their own works, and went a-whoring with their own inventions."

These cruel rites, practised in so many nations, made Plutarch debate with himself, "Whether it would not have been better for the Galatæ, or for the Scythians, to have had no tradition or conception of any superior being, than to have formed to themselves notions of gods who delighted in the blood of men; of gods, who esteemed human victims the most acceptable and perfect sacrifice? Would it not (says he) have been more eligible for the Carthaginians to have had the atheist Critias, or Diagoras, their lawgiver, at the commencement of their polity, and to have been taught, that there was neither god nor demon, than to have sacrificed, in the manner they were wont, to the god which they adored? Wherein they acted, not as the person did whom Empedocles describes in some poetry, where he exposes this unnatural custom. The sire there with many idle vows offers up unwittingly his son for a sacrifice; but the youth was so changed in feature and figure, that his father did not know him. These people used knowingly and wilfully, to go through this bloody work, and slaughter their own offspring. Even they who were childless would not be exempted from this cursed tribute; but purchased children, at a price, of the poorer sort, and put them to death with as little remorse as one would kill a lamb or a chicken. The mother, who sacrificed her child, stood by, without any seeming sense of what she was losing, and without uttering a groan. If a sigh did by chance escape, she lost all the honour which she proposed to herself in the offering, and the child was notwithstanding slain. All the time of this ceremony, while the children were murdering, there was a noise of clarions and tabors sounding before the idol, that the cries and shrieks of the victims might not be heard. "Tell me now (says Plutarch) if the monsters of old, the Typhons and the giants, were to expel the gods, and to rule the world in their stead; could they require a service more horrid than these infernal rites and sacrifices?"

SACRILEGE, Sacrilegium, the crime of profaning sacred things, or things devoted to God; or of alienating to laymen, or common purposes, what was given to religious persons and pious uses.

SACRISTAN, a church-officer, otherwise called Sexton.

SACRISTY, in church-history, an apartment in a church where the sacred utensils were kept, being the same with our Vestry.

SADDLE, is a seat upon a horse's back, contrived for the conveniency of the rider.

A hunting-saddle is composed of two bows, two bands, fore-bolsters, pannels, and saddle-straps; and the great saddle has, besides these parts, corks, hind-bolsters, and a troussequin.

The pommel is common to both.

SADDUCEES, were a famous sect among the ancient Jews, and consisted of persons of great quality and opulence. Respecting their origin there are various accounts and various opinions. Epiphanius, and after him many other writers, contend, that they took their rise from Dositheus a sectary of Samaria, and their name from the Hebrew word צדק, *just* or *justice*, from the great justice and equity which they showed in all their actions; a derivation which neither suits the word *Sadducee* nor the general character of the sect. They are thought by some too to have been Samaritans: but this is by no means probable, as they always attended the worship and sacrifices at Jerusalem, and never at Gerizzim.

In the Jewish Talmud we are told that the Sadducees derived their name from *Sadoc*, and that the sect arose about 260 years before Christ, in the time of Antigonus of Socho, president of the Sanhedrim at Jerusalem, and teacher of the law in the principal divinity school of that city. He had often in his lectures, it seems, taught his scholars, that they ought not to serve God as slaves do their masters, from the hopes of a reward, but merely out of filial love for his own sake; from which Sadoc and Baithus inferred that there were no rewards at all after this life. They therefore separated from their master, and taught that there was no resurrection nor future state. This new doctrine quickly spread, and gave rise to the sect of Sadducees, which in many respects resembled the Epicureans.

Dr Prideaux thinks that the Sadducees were at first no more than what the Caraites are now; that is, they would not receive the traditions of the elders, but stuck to the written word only: and the Pharisees being great promoters of those traditions, hence these two sects became directly opposite to each other. See *Prideaux's Conn.* part. 2. book 2. and 3.; and see also Pharisees and Caraites.

Afterwards the Sadducees imbibed other doctrines, which rendered them a sect truly impious: for they denied the resurrection of the dead, and the existence of angels, and of the spirits or souls of men departed (Matt.

Sadducees. (Matt. xxii. 23. Acts xxiii. 8.). They held, that there is no spiritual being but God only; that as to man, this world is his all. They did not deny but that we had reasonable souls: but they maintained this soul was mortal; and, by a necessary consequence, they denied the rewards and punishments of another life. They pretended also, that what is said of the existence of angels, and of a future resurrection, are nothing but illusions. St Epiphanius, and after him St Austin, have advanced, that the Sadducees denied the Holy Ghost. But neither Josephus nor the evangelists accuse them of any error like this. It has been also imputed to them, that they thought God corporeal, and that they received none of the prophecies.

It is pretty difficult to apprehend how they could deny the being of angels, and yet receive the books of Moses, where such frequent mention is made of angels and of their appearances. Grotius and M. Le Clerc observe, that it is very likely they looked upon angels, not as particular beings, subsisting of themselves, but as powers, emanations, or qualities, inseparable from the Deity, as the sunbeams are inseparable from the sun. Or perhaps they held angels not to be spiritual but mortal; just as they thought that substance to be which animates us and thinks in us. The ancients do not tell us how they solved this difficulty, that might be urged against them from so many passages of the Pentateuch, where mention is made of angels.

As the Sadducees acknowledged neither punishments nor recompenses in another life, so they were inexorable in their chastising of the wicked. They observed the law themselves, and caused it to be observed by others, with the utmost rigour. They admitted of none of the traditions, explications, or modifications, of the Pharisees; they kept only to the text of the law; and maintained, that only what was written was to be observed.

The Sadducees are accused of rejecting all the books of Scripture except those of Moses; and to support this opinion, it is observed, that our Saviour makes use of no Scripture against them, but passages taken out of the Pentateuch. But Scaliger produces good proofs to vindicate them from this reproach. He observes, that they did not appear in Israel till after the number of the holy books was fixed; and that if they had been to choose out of the canonical Scriptures, the Pentateuch was less favourable to them than any other book, since it often makes mention of angels and their apparition. Besides, the Sadducees were present in the temple and at other religious assemblies, where the books of the prophets were read indifferently, as well as those of Moses. They were in the chief employments of the nation, many of them were even priests. Would the Jews have suffered in these employments persons that rejected the greatest part of their Scriptures? Menasse ben-Israel says expressly, that indeed they did not reject the prophets, but that they explained them in a sense very different from that of the other Jews.

Josephus assures us, that they denied destiny or fate; alleging that these were only sounds void of sense, and that all the good or evil that happens to us is in consequence of the good or evil side we have taken, by the free choice of our will. They said, also, that God was far removed from doing or knowing evil, and that man was the absolute master of his own actions. This was roundly to deny a providence; and upon this footing I know not, says F. Calmet, what could be the religion of the Sadducees, or what influence they could ascribe to God in things here below. However, it is certain they were not only tolerated among the Jews, but that they were admitted to the high-priesthood itself. John Hircanus, high-priest of that nation, separated himself in a signal manner from the sect of the Pharisees, and went over to that of Sadoc. It is said, also, he gave strict command to all the Jews, on pain of death, to receive the maxims of this sect. Aristobulus and Alexander Jannæus, son of Hircanus, continued to favour the Sadducees; and Maimonides assures us, that under the reign of Alexander Jannæus, they had in possession all the offices of the Sanhedrim, and that there only remained of the party of the Pharisees, Simon the son of Secra. Caiaphas, who condemned Jesus Christ to death, was a Sadducee (Acts v. 17. iv. 1.); as also Ananus the younger, who put to death St James the brother of our Lord. At this day, the Jews hold as heretics that small number of Sadducees that are to be found among them. See upon this matter *Serrar. Trihæres. Menasse ben-Israel de Resurrectione mortuorum; Basnage's History of the Jews*, &c.; and *Calmet's Dissertation upon the Sects of the Jews* before *the Commentary of St Mark*.

The sect of the Sadducees was much reduced by the destruction of Jerusalem, and by the dispersion of the Jews; but it revived afterwards. At the beginning of the third century it was so formidable in Egypt, that Ammonius, Origen's master, when he saw them propagate their opinions in that country, thought himself obliged to write against them, or rather against the Jews, who tolerated the Sadducees, though they denied the fundamental points of their religion. The emperor Justinian mentions the Sadducees in one of his novels, banishes them out of all places of his dominions, and condemns them to the severest punishments, as people that maintained atheistical and impious tenets, denying the resurrection and the last judgment. Annus, or Ananus, a disciple of Juda, son of Nachman, a famous rabbin of the 8th century, declared himself, as it is said, in favour of the Sadducees, and strenuously protected them against their adversaries. They had also a celebrated defender in the 12th century, in the person of Alpharag, a Spanish rabbin. This doctor wrote against the Pharisees, the declared enemies of the Sadducees; and maintained by his public writings, that the purity of Judaism was only to be found among the Sadducees; that the traditions avowed by the Pharisees were useless; and that the ceremonies, which they had multiplied without end, were an unsupportable yoke. The rabbi Abraham ben David Italleri replied to Alpharag, and supported the sect of the Pharisees by two great arguments, that of their universality and that of their antiquity. He proved their antiquity by a continued succession from Adam down to the year 1167; and their universality, because the Pharisees are spread all the world over, and are found in all the synagogues. There are still Sadducees in Africa and in several other places. They deny the immortality of the soul, and the resurrection of the body; but they are rarely found, at least there are but few who declare themselves for these opinions.

SADLER, John, was descended from an ancient family in Shropshire; born in 1615; and educated at Cambridge,

Cambridge, where he became eminent for his great knowledge in the oriental languages. He removed to Lincoln's-Inn, where he made no small progress in the study of the law; and in 1644 was admitted one of the masters in chancery, as also one of the two masters of requests. In 1649 he was chosen town-clerk of London, and the same year published his *Rights of the Kingdom*. He was greatly esteemed by Oliver Cromwell, by whose special warrant he was continued a master in chancery, when their number was reduced to six. By his interest it was that the Jews obtained the privilege of building for themselves a synagogue in London. In 1658 he was made member of parliament for Yarmouth; and next year was appointed first commissioner under the great seal with Mr Taylor, Mr Whitelocke, and others, for the probate of wills. In 1660 he published his *Olbia*. Soon after the restoration, he lost all his employments. In the fire of London in 1666, he was a great sufferer; which obliged him to retire to his seat of Warmwell in Dorsetshire, where he lived in a private manner till 1674, when he died.

SADOC, a famous Jewish rabbi, and founder of the sect of the SADDUCEES.

SADOLET, JAMES, a polite and learned cardinal of the Romish church, born at Modena in 1477. Leo X. made him and Peter Bembus his secretaries, an office for which they were both well qualified; and Sadolet was soon after made bishop of Carpentras, near Avignon: he was made a cardinal in 1536 by Paul III., and employed in several negociations and embassies. He died in 1547, not without the suspicion of poison, for corresponding too familiarly with the Protestants, and for testifying too much regard for some of their doctors. His works, which are all in Latin, were collected in 1607 at Mentz, in one volume 8vo. All his contemporaries spoke of him in the highest terms.

SAFE-GUARD, a protection formerly granted to a stranger who feared violence from some of the king's subjects for seeking his right by course of law.

SAFE-Conduct is a security given by a prince under the great seal, to a stranger for his *safe-coming* into and passing out of the realm; the form whereof is in *Reg. Orig.* 25. There are letters of safe-conduct which must be enrolled in Chancery; and the persons to whom granted must have them ready to show; and touching which there are several statutes. See PREROGATIVE.

SAFFRON, in the *Materia Medica*, is formed of the stigmata of the crocus officinalis, dried on a kiln, and pressed together into cakes. See CROCUS, BOTANY *Index*. There are two kinds of saffron, the English and Spanish; of which the latter is by far the most esteemed. Saffron is principally cultivated in Cambridgeshire, in a circle of about ten miles diameter. The greatest part of this tract is an open level country, with few inclosures; and the custom there is, as in most other places, to crop two years, and let the land be fallow the third. Saffron is generally planted upon fallow-ground, and, all other things being alike, they prefer that which has borne barley the year before.

The saffron ground is seldom above three acres, or less than one; and in choosing, the principal thing they have regard to is, that they be well exposed, the soil not poor, nor a very stiff clay, but a temperate dry mould, such as commonly lies upon chalk, and is of an hazel colour; though, if every thing else answers, the colour of the mould is pretty much neglected.

The ground being made choice of, about Lady-day or the beginning of April, it must be carefully ploughed, the furrows being drawn much closer together, and deeper if the soil will allow it, than is done for any kind of corn; and accordingly the charge is greater.

About five weeks after, during any time in the month of May, they lay between 20 and 30 loads of dung upon each acre, and having spread it with great care, they plough it in as before. The shortest rotten dung is the best: and the farmers, who have the conveniency of making it, spare no pains to make it good, being sure of a proportionable price for it. About midsummer they plough a third time, and between every 16 feet and a half they leave a broad furrow or trench, which serves both as a boundary to the several parcels, and for throwing the weeds into at the proper season. The time of planting is commonly in the month of July. The only instrument used at this time is a small narrow spade, commonly called a *spit-shovel*. The method is this: One man with his shovel raises about three or four inches of earth, and throws it before him about six or more inches. Two persons, generally women, follow with roots, which they place in the farthest edge of the trench made by the digger, at about three inches from each other. As soon as the digger has gone once the breadth of the ridge, he begins again at the other side; and, digging as before, covers the roots last set, which makes room for another row of roots at the same distance from the first that they are from one another. The only dexterity necessary in digging is, to leave some part of the first stratum of earth untouched, to lie under the roots; and, in setting, to place the roots directly upon their bottom. The quantity of roots planted on an acre is generally about 16 quarters, or 128 bushels. From the time of planting till the beginning of September, or sometimes before, there is no more labour required; but at that time they begin to vegetate, and are ready to show themselves above ground, which may be known by digging up a few of the roots. The ground is then to be pared with a sharp hoe, and the weeds raked into the furrows, otherwise they would hinder the growth of the saffron. In some time after, the flowers appear.

They are gathered before they are full blown, as well as after, and the proper time for it is early in the morning. The owners of the saffron-fields get together a sufficient number of hands, who pull off the whole flowers, and throw them by handfuls into a basket, and so continue till about 11 o'clock. Having then carried home the flowers, they immediately fall to picking out the stigmata or chives, and together with them a pretty large proportion of the stylus itself, or string to which they are attached: the rest of the flower they throw away as useless. Next morning they return to the field, without regarding whether the weather be wet or dry: and so on daily, even on Sundays, till the whole crop is gathered.—The next labour is to dry the chives on the kiln. The kiln is built upon a thick plank, that it may be moved from place to place. It is supported by four short legs: the outside consists of eight pieces of wood of three inches thick, in form of a quadrangular frame, about 12 inches square at the bottom on the inside, and 22 on the upper part; which last

last is likewise the perpendicular height of it. On the foreside is left a hole of about eight inches square, and four inches above the plank, through which the fire is put in; over all the rest laths are laid pretty thick, close to one another, and nailed to the frame already mentioned. They are then plastered over on both sides, as are also the planks at bottom, very thick, to serve for a hearth. Over the mouth is laid a hair-cloth, fixed to the edges of the kiln, and likewise to two rollers or moveable pieces of wood, which are turned by wedges or screws, in order to stretch the cloth. Instead of the hair-cloth, some people use a net-work of iron-wire, by which the saffron is soon dried, and with less fuel; but the difficulty of preserving it from burning makes the hair-cloth preferred by the best judges. The kiln is placed in a light part of the house; and they begin with putting five or six sheets of white paper on the hair-cloth, and upon these they lay out the wet saffron two or three inches thick. It is then covered with some other sheets of paper, and over these they lay a coarse blanket five or six times doubled, or, instead of this, a canvas pillow filled with straw; and after the fire has been lighted for some time, the whole is covered with a board having a considerable weight upon it. At first they apply a pretty strong heat, to make the chives *sweat* as they call it: and at this time a great deal of care is necessary to prevent burning. When it has been thus dried about an hour, they turn the cakes of saffron upside down, putting on the coverings and weight as before. If no sinister accident happens during these first two hours, the danger is thought to be over; and nothing more is requisite than to keep up a very gentle fire for 24 hours, turning the cake every half hour. That fuel is best which yields the least smoke; and for this reason charcoal is preferable to all others.

The quantity of saffron produced at a crop is uncertain. Sometimes five or six pounds of wet chives are got from one rood, sometimes not above one or two; and sometimes not so much as is sufficient to defray the expense of gathering and drying. But it is always observed, that about five pounds of wet saffron go to make one pound of dry for the first three weeks of the crop, and six pounds during the last week. When the heads are planted very thick, two pounds of dry saffron may at a medium be allowed to an acre for the first crop, and 24 pounds for the two remaining ones, the third being considerably larger than the second.

To obtain the second and third crops, the labour of hoeing, gathering, picking, &c. already mentioned, must be repeated; and about midsummer, after the third crop is gathered, the roots must all be taken up and transplanted. For taking up the roots, sometimes the plough is made use of, and sometimes a forked hoe; and then the ground is harrowed once or twice over. During all the time of ploughing, harrowing, &c. 15 or more people will find work enough to follow and gather the heads as they are turned up. The roots are next to be carried to the house in sacks, where they are cleaned and rased. This labour consists in cleaning the roots thoroughly from earth, decayed old pieces, involucra, or excrescences; after which they become fit to be planted in new ground immediately, or they may be kept for some time, without danger of spoiling. The quantity of roots taken up in proportion to those planted is uncertain; but at a medium, 24 quarters of clean roots, fit to be planted, may be had from each acre.— There sometimes happens a remarkable change in the roots of saffron and some other plants. As soon as they begin to shoot upwards, there are commonly two or three large tap-roots sent forth from the side of the old one, which will run two or three inches deep into the ground. At the place where these bulbs first come out from, the old one will be formed sometimes, though not always, and the tap-root then decays. The bulb increases in bigness, and at last falls quite off; which commonly happens in April. But many times these tap-roots never produce any bulbs, and remain barren for ever after. All such roots therefore should be thrown away in the making a new plantation. This degeneracy in the roots is a disease for which no cure is as yet known.

When saffron is offered to sale, that kind ought to be chosen which has the broadest blades; this being the mark by which English saffron is distinguished from the foreign. It ought to be of an orange or fiery-red colour, and to yield a dark yellow tincture. It should be chosen fresh, not above a year old, in close cakes, neither dry nor yet very moist, tough and firm in tearing, of the same colour within as without, and of a strong, acrid, diffusive smell.

This drug has been reckoned a very elegant and useful aromatic. Besides the virtues it has in common with other substances of that class, it has been accounted one of the highest cordials, and is said to exhilarate the spirits to such a degree, as, when taken in large doses, to occasion immoderate mirth, involuntary laughter, and the ill effects which follow from the abuse of spirituous liquors. This medicine is particularly serviceable in hysteric depressions proceeding from a cold cause or obstruction of the uterine secretions, where other aromatics, even those of the more generous kind, have little effect. Saffron imparts the whole of its virtue and colour to rectified spirit, proof spirit, wine, vinegar, and water. A tincture drawn with vinegar loses greatly of its colour in keeping: the watery and vinous tinctures are apt to grow sour, and then lose their colour also: that made in pure spirit keeps in perfection for many years.

Meadow Saffron. See Colchicum, Botany *Index*.

SAGAN, in scripture history, the suffragan or deputy of the Jewish high-priest. According to some writers, he was only to officiate for him when he was rendered incapable of attending the service through sickness or legal uncleanness on the day of expiation; or, according to others, he was to assist the high-priest in the care of the affairs of the temple and the service of the priests.

SAGAPENUM, in *Pharmacy*, &c. a gum-resin which is made up in two forms; the finer and purer is in loose granules or single drops; the coarser kind is in masses composed of these drops of various sizes, cemented together by a matter of the same kind; and is brought from Persia and the East Indies. See Materia Medica *Index*.

SAGE. See Salvia, Botany *Index*.

Sage, *Alain Rene*, an ingenious French romance-writer, was born at Rnys in Brittany in the year 1667. He had a fine flow of imagination, was a complete master of the French and Spanish languages, and wrote several admired romances in imitation of the Spanish authors.

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thors. These were, The Bachelor of Salamanca, 2 vols 12mo; New Adventures of Don Quixote, 2 vols 12mo; The Devil on Two Sticks, 2 vols 12mo; and Gil Blas, 4 vols 12mo. He produced also some comedies, and other humorous pieces. This ingenious author died in the year 1747, in the vicinity of Paris, where he supported himself by writing.

Sage, *the Reverend John*, so justly admired by all who knew him for his classical learning and reasoning powers, was born, in 1652, in the parish of Creich and county of Fife, North Britain, where his ancestors had lived for seven generations with great respect though with little property. His father was a captain in Lord Duffus's regiment, and fought for his king and country when Monk stormed Dundee on the 30th of August 1651.

The issue of the civil wars, and the loyalty of Captain Sage, left him nothing to bestow upon his son but a liberal education and his own principles of piety and virtue. In those days the Latin language was taught in the parochial schools of Scotland with great ability and at a trifling expense; and after young Sage had acquired a competent knowledge of that language at one of those useful seminaries, his father, without receiving from an ungrateful court any recompense for what he had lost in the cause of royalty, was still able to send him to the university of St Andrew's, where having remained in college the usual number of terms or sessions, and performed the exercises required by the statutes, he was admitted to the degree of master of arts, the highest honour which it appears he ever received from any university.

During his residence in St Andrew's he studied the Greek and Roman authors with great diligence, and was likewise instructed in logic, metaphysics, and such other branches of philosophy as then obtained in the schools, which, though we affect to smile at them in this enlightened age, he always spoke of as highly useful to him who would understand the poets, historians, and orators of ancient Greece, and even the fathers of the Christian church. In this opinion every man will agree with him, who is at all acquainted with the ancient metaphysics, and has read the writings of Clemens Alexandrinus, Origen, Tertullian, Chrysostome, and other fathers of great name; for each of those writers adopted the principles of some one or other of the philosophical sects, reasoned from their notions, and often made use of their terms and phrases.

When Mr Sage had taken his master's degree, the narrowness of his fortune compelled him to accept of the first literary employment which was offered to him; and that happened to be nothing better than the office of schoolmaster in the parish of Bingry in Fifeshire, whence he was soon removed to Tippermuir in the county of Perth. In these humble stations, though he wanted many of the necessaries and almost all the comforts of life, he prosecuted his studies with great success; but in doing so, he unhappily imbibed the seeds of several diseases which afflicted him through life, and, notwithstanding the native vigour of his constitution, impaired his health and shortened his days. From the miserable drudgery of a parish-schoolmaster, he was relieved by Mr Drummond of Cultmalundie, who invited him to superintend the education of his sons, whom he accompanied first to the public school at Perth, and afterwards to the university of St Andrew's. This was still an employment by no means adequate to his merit, but it was not wholly without advantages. At Perth, he gained the friendship and esteem of Dr Rose, afterwards lord bishop of Edinburgh, and at St Andrew's of every man capable of properly estimating genius and learning.

The education of his pupils was completed in 1684, when he was left with no determinate object of pursuit. In this moment of indecision, his friend Dr Rose, who had been promoted from the parsonage of Perth to the professorship of divinity in the university which he was leaving, recommended him so effectually to his uncle, then archbishop of Glasgow, that he was by that prelate admitted into orders and presented to one of the churches in the city. He was then about 34 years of age; had studied the Scriptures with great assiduity; was no stranger to ecclesiastical history, or the apologies and other writings of the antient fathers; was thorough master of school-divinity; had examined with great accuracy the modern controversies, especially those between the Romish and Reformed churches, and between the Calvinists and Remonstrants; and it was perhaps to his honour that he did not fully approve of all the articles of faith subscribed by any one of these contending sects of Christians.

A man so far advanced in life, and so thoroughly accomplished as a scholar, would naturally be looked up to by the greater part of the clergy as soon as he became one of their body. This was in fact the case: Mr Sage was, immediately on his admission into orders, appointed clerk to the synod or presbytery of Glasgow; an office of great trust and respectability, to which we know nothing similar in the church of England.

During the establishment of episcopacy in Scotland, from the restoration of Charles II. till the year 1690, the authority of the bishops, though they possessed the sole power of ordination, was very limited in the government of the church. They did every thing with the consent of the presbyters over whom they presided. Diocesan synods were held at stated times for purposes of the same kind with those which employ the meetings of presbyteries at present (see Presbyterians); and the only prerogative which the bishop seems to have enjoyed was to be permanent president, with a negative voice over the deliberations of the assembly. The acts of each synod, and sometimes the charge delivered by the bishop at the opening of it, were registered in a book kept by the clerk, who was always one of the most eminent of the diocesan clergy.

Mr Sage continued in this office, discharging in Glasgow all the duties of a clergyman, in such a manner as endeared him to his flock, and gained him the esteem even of those who were dissenters from the establishment. Many of his brethren were trimmers in ecclesiastical as well as in civil politics. They had been republicans and presbyterians in the days of the covenant; and, with that ferocious zeal which too often characterizes interested converts, had concurred in the severities which, during the reign of Charles II, were exercised against the party whom they had forsaken at his restoration. When that party again raised its head during the infatuated reign of James, and every thing indicated an approaching change of the establishment, those

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those whose zeal for the church had so lately incited them to persecute the dissenters, suddenly became all gentleness and condescension, and advanced towards the presbyterians as to their old friends.

The conduct of Mr Sage was the reverse of this. He was an episcopalian and a royalist from conviction; and in all his discourses, public and private, he laboured to instil into the minds of others the principles which to himself appeared to have their foundation in truth. To persecution he was at all times an enemy, whilst he never tamely betrayed through fear what he thought it his duty to maintain. The consequence was, that in the end of the year 1688 he was treated by the rabble, which in the western counties of Scotland rose against the established church, with greater lenity than his more complying brethren. Whilst they, without the smallest apprehension of their danger, were torn from their families by a lawless force, and many of them persecuted in the cruellest manner, he was privately warned to withdraw from Glasgow, and never more to return to that city. So much was consistency of conduct and a steady adherence to principle respected by those who seemed to respect nothing else.

Mr Sage retired to the metropolis, and carried with him the synodical book, which was afterwards demanded by the presbytery of Glasgow, but not recovered, till about twenty years ago, that, on the death of a nephew of Dr Rose the last established bishop of Edinburgh, it was found in his possession, and restored to the presbytery to which it belonged. Mr Sage had detained it and given it to his diocesan friend, from the fond hope that episcopacy would soon be re-established in Scotland; and it was doubtless with a view to contribute what he could to the realising of that hope, that, immediately on his being obliged to leave Glasgow, he commenced a keen polemical writer. At Edinburgh he preached a while, till refusing to take the oaths of allegiance when required by the government, he was obliged to retire. In this extremity, he found protection in the house of Sir William Bruce, the sheriff of Kinross, who approved his principles and admired his virtue. Returning to Edinburgh, in 1695, he was observed, and obliged to abscond. Yet he returned in 1696, when his friend Sir William Bruce was imprisoned as a suspected person. He was soon forced to seek for refuge in the hills of Angus, under the name of Jackson.

After a while Mr Sage found a safe retreat with the countess of Callendar, who employed him to instruct her family as chaplain, and her sons as tutor. These occupations did not wholly engage his active mind: for he employed his pen in defending his order, or in exposing his oppressors. When the countess of Callendar had no longer sons to instruct, Sage accepted the invitation of Sir John Steuart of Garntully, who wanted the help of a chaplain, and the conversation of a scholar. With Sir John he continued till the decency of his manners, and the extensiveness of his learning, recommended him to a higher station. And, on the 25th of January 1705, he was consecrated a bishop by Paterson the archbishop of Glasgow, Rose the bishop of Edinburgh, and Douglas the bishop of Dumblain. But this promotion did not prevent sickness from falling on him in November 1706. After lingering for many months in Scotland, he tried the effect of the waters of Bath in 1709, without success. At Bath and at London he remained a twelvemonth, recognised by the great and caressed by the learned. Yet though he was invited to stay, he returned in 1710 to his native country, which he desired to see, and where he wished to die. And though his body was debilitated, he engaged, with undiminished vigour of mind, in the publication of the works of Drummond of Hawthornden, to which the celebrated Ruddiman lent his aid. Bishop Sage died at Edinburgh on the 7th of June 1711, lamented by his friends for his virtues, and feared by his adversaries for his talents.

His works are, 1st, Two Letters concerning the Persecution of the Episcopal Clergy in Scotland, which with other two by different authors were printed in one volume at London in 1689. 2dly, An Account of the late Establishment of Presbyterian Government by the Parliament of Scotland, in 1690, London, 1693. 3dly, The Fundamental Charter of Presbytery, London, 1695. 4thly, The Principles of the Cyprianick Age with regard to Episcopal Power and Jurisdiction, London, 1695. 5thly, A Vindication of the Principles of the Cyprianick Age, London, 1701. 6thly, Some Remarks on the Letter from a Gentlemen in the City, to a Minister in the Country, on Mr David Williamson's Sermon before the General Assembly, Edinburgh, 1703. 7thly, A Brief Examination of some Things in Mr Meldrum's Sermon, preached on the 16th of May 1703, against a Toleration to those of the Episcopal Persuasion, Edinburgh, 1703. 8thly, The Reasonableness of a Toleration of those of the Episcopal Persuasion inquired into purely on Church Principles, Edinburgh, 1704. 9thly, The Life of Gawin Douglas, in 1710. 10thly, An Introduction to Drummond's History of the Five James's, Edinburgh, 1711. Of the principles maintained in these publications, different readers will think very differently; and it is propable that the acrimony displayed in some of them will be generally condemned in the present day; whilst the learning and acuteness of their author will be universally acknowledged and admired by all who can distinguish merit in a friend or an adversary.

SAGENE, or SAJENE, a Russian long measure, 500 of which make a verst: the sagene is equal to seven English feet.

SAGINA, a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 22d order, *Caryophyllei*. See BOTANY *Index*.

SAGITTA, in *Astronomy*, the Arrow, a constellation of the northern hemisphere near the Eagle, and one of the 48 old asterisms. According to the fabulous ideas of the Greeks, this constellation owes its origin to one of the arrows of Hercules, with which he killed the eagle or vulture that gnawed the liver of Prometheus. In the catalogues of Ptolemy, Tycho, and Helvelius, the stars of this constellation are only five in number, while Flamstead made them amount to 18.

SAGITTA, in *Geometry*, a term used by some writers for the abscis of a curve.

SAGITTA, in *Trigonometry*, the same as the versed sine of an arch, being so denominated because it is like a dart or arrow, standing on the chord of the arch.

SAGITTARIA, ARROW-HEAD, a genus of plants belonging to the monœcia class; and in the natural method ranking under the fifth order, *Tripetaloideæ*. See BOTANY *Index*.—A bulb which is fomed at the lower part

Sagittaria.

part of the root of a species of this plant, constitutes a considerable part of the food of the Chinese; and upon that account they cultivate it.

SAGITTARIUS, in *Astronomy*, the name of one of the 12 signs of the zodiac.

SAGO, a nutritive substance brought from the East Indies, of considerable use in diet as a restorative. It is produced from a species of palm-tree (*Cycas circinalis*, Lin.) growing spontaneously in the East Indies without any culture. The progress of its vegetation in the early stages is very slow. At first it is a mere shrub, thick set with thorns, which make it difficult to come near it; but as soon as its stem is once formed, it rises in a short time to the height of 30 feet, is about six feet in circumference, and imperceptibly loses its thorns. Its ligneous bark is about an inch in thickness, and covers a multitude of long fibres; which, being interwoven one with another, envelope a mass of a gummy kind of meal. As soon as this tree is ripe, a whitish dust, which transpires through the pores of the leaves, and adheres to their extremities, proclaims its maturity. The Malays then cut them down near the root, divide them into several sections, which they split into quarters; they then scoop out the mass of mealy substance, which is enveloped by and adheres to the fibres; they dilute it in pure water, and then pass it through a straining bag of fine cloth, in order to separate it from the fibres. When this paste has lost part of its moisture by evaporation, the Malays throw it into a kind of earthen vessels, of different shapes, where they allow it to dry and harden. This paste is a wholesome nourishing food, and may be preserved for many years. The Indians eat it diluted with water, and sometimes baked or boiled. Through a principle of humanity, they reserve the finest part of this meal for the aged and infirm. A jelly is sometimes made of it, which is white and of a delicious flavour.

SAGUM, in Roman antiquity, a military habit, open from top to bottom, and usually fastened on the right shoulder with a buckle or clasp. It was not different in shape from the *chlamys* of the Greeks, and the *paludamentum* of the generals. The only difference between them was, that the paludamentum was made of a richer stuff, was generally of a purple colour, and both longer and fuller than the sagum.

SAGUNTUM, an ancient town of Spain, now called *Morvedro*, where there are still the ruins of a Roman amphitheatre to be seen. The new town is seated on a river called *Morvedro*, 15 miles to the north of Valencia, in E. Long. 0. 10. N. Lat. 39. 38. It was taken by Lord Peterborough in 1706.

SAHARA, or ZAARA, the Great Desert, is a vast extent of sand in the interior parts of Africa, which, with the lesser deserts of Bornou, Bilma, Barca, Sort, &c. is equal to about one half of Europe. If the sand be considered as the ocean, the Sahara has its gulfs and bays, as also its islands, or OASES, fertile in groves and pastures, and in many instances containing a great population, subject to order and regular government.

The great body, or western division of this ocean, comprised between Fezzan and the Atlantic, is no less than 50 caravan journeys across, from north to south; or from 750 to 800 G. miles; and double that extent in length: without doubt the largest desert in the world. This division contains but a scanty portion of islands (or oases), and those also of small extent: but the eastern division has many, and some of them very large. Fezzan, Gadamis, Taboo, Ghanat, Agadez, Augila, Berdoa, are amongst the principal ones: besides which, there are a vast number of small ones. In effect, this is the part of Africa alluded to by Strabo, when he says, from *Cneius Piso*, that Africa may be compared to a leopard's skin.

From the best inquiries that Mr Park could make when a kind of captive among the Moors at Ludamar, the Western Desert, he says, may be pronounced almost destitute of inhabitants; except where the scanty vegetation, which appears in certain spots, affords pasturage for the flocks of a few miserable Arabs, who wander from one well to another. In other places, where the supply of water and pasturage is more abundant, small parties of the Moors have taken up their residence. Here they live, in independent poverty, secure from the tyrannical government of Barbary. But the greater part of the desert, being totally destitute of water, is seldom visited by any human being; unless where the trading caravans trace out their toilsome and dangerous route across it. In some parts of this extensive waste, the ground is covered with low stunted shrubs, which serve as land-marks for the caravans, and furnish the camels with a scanty forage. In other parts, the disconsolate wanderer, wherever he turns, sees nothing around him but a vast interminable expanse of sand and sky; a gloomy and barren void, where the eye finds no particular object to rest upon, and the mind is filled with painful apprehensions of perishing with thirst. Surrounded by this dreary solitude, the traveller sees the dead bodies of birds, that the violence of the wind has brought from happier regions; and, as he ruminates on the fearful length of his remaining passage, listens with horror to the voice of the driving blast—the only sound that interrupts the awful repose of the desert.

The wild animals which inhabit these melancholy regions, are the antelope and the ostrich; their swiftness of foot enabling them to reach the distant watering-places. On the skirts of the desert, where the water is more plentiful, are found lions, panthers, elephants, and wild boars.

The only domestic animal that can endure the fatigue of crossing the desert is the camel; and it is therefore the only beast of burden employed by the trading caravans which traverse, in different directions, from Barbary to Nigritia. The flesh of this useful and docile creature, though to our author's taste it was dry and unsavoury, is preferred by the Moors to all others. The milk of the female, he says, is in universal esteem, and is indeed pleasant and nutritive.

That the desert has a dip towards the east, as well as the south, seems to be proved by the course of the Niger. Moreover, the highest points of North Africa, that is to say, the mountains of Mandinga and Atlas, are situated very far to the west. The desert, for the most part, abounds with salt. But we hear of salt mines only in the part contiguous to Nigritia, from whence salt is drawn for the use of those countries, as well as of the Moorish states adjoining; there being no salt in the negro countries south of the Niger. There are salt lakes also in the eastern part of the desert.

SAHLITE, a species of mineral, see MINERALOGY *Index*.

Sai || Sail.

SAI, a large town near the banks of the Niger, which, according to Mr Park, is completely surrounded by two very deep trenches, at about two hundred yards distant from the walls. On the top of the trenches are a number of square towers: and the whole has the appearance of a regular fortification. Inquiring into the origin of this extraordinary entrenchment, our author learned from two of the towns-people the following particulars; which, if true, furnish a mournful picture of the enormities of African wars:

About fifteen years before our traveller visited Sai, when the king of Bambarra desolated Maniana, the Dooty of Sai had two sons slain in battle, fighting in the king's cause. He had a third son living; and when the king demanded a further reinforcement of men, and this youth among the rest, the Dooty refused to send him. This conduct so enraged the king, that when he returned from Maniana, about the beginning of the rainy season, and found the Dooty protected by the inhabitants, he sat down before Sai with his army, and surrounded the town with the trenches which had attracted our author's notice. After a siege of two months, the towns-people became involved in all the horrors of famine; and whilst the king's army were feasting in their trenches, they saw with pleasure the miserable inhabitants of Sai devour the leaves and bark of the Bentang tree that stood in the middle of the town. Finding, however, that the besieged would sooner perish than surrender, the king had recourse to treachery. He promised, that if they would open the gates, no person should be put to death, nor suffer any injury, but the Dooty alone. The poor old man determined to sacrifice himself, for the sake of his fellow-citizens, and immediately walked over to the king's army, where he was put to death. His son, in attempting to escape, was caught and massacred in the trenches; and the rest of the towns-people were carried away captives, and sold as slaves to the different Negro traders. Sai, according to Major Rennel, is situated in N. Lat. 14°, and in W. Long. 3° 7′.

SAICK, or SAIQUE, a Turkish vessel, very common in the Levant for carrying merchandise.

SAIDE, the modern name of Sidon. See SIDON.

SAIL, in *Navigation*, an assemblage of several breadths of canvas sewed together by the lists, and edged round with cord, fastened to the yards of a ship, to make it drive before the wind. See SHIP.

The edges of the cloths, or pieces, of which a sail is composed, are generally sewed together with a double seam; and the whole is skirted round at the edges with a cord, called the *bolt-rope*.

Although the form of sails is extremely different, they are all nevertheless triangular or quadrilateral figures; or, in other words, their surfaces are contained either between three or four sides.

The former of these are sometimes spread by a yard, as lateen-sails; and otherwise by a stay, as stay-sails; or by a mast, as shoulder-of-mutton sails; in all which cases the foremost leech or edge is attached to the said yard, mast, or stay, throughout its whole length. The latter, or those which are four-sided, are either extended by yards, as the principal yards of a ship; or by yards and booms, as the studding-sails, drivers, ring-tails, and all those sails which are set occasionally; or by gaffs and booms, as the main-sails of sloops and brigantines.

Sail.

The principal sails of a ship (fig. 1.) are the courses or lower sails *a*; the top-sails *b*, which are next in order above the courses; and the top-gallant sails *c*, which are expanded above the top-sails.

Plate CCCCLXVIII fig. 1.

The courses are the main-sail, fore-sail, and mizen, main stay-sail, fore stay-sail, and mizen stay-sail; but more particularly the three first. The main stay-sail is rarely used except in small vessels.

In all quadrangular sails the upper edge is called the *head*; the sides or skirts are called *leeches*; and the bottom or lower edge is termed the *foot*. If the head is parallel to the foot, the two low corners are denominated *clues*, and the upper corners earings.

In all triangular sails, and in those four-sided sails wherein the head is not parallel to the foot, the foremost corner at the foot is called the *tack*, and the after lower-corner the *clue*; the foremost perpendicular or sloping edge is called the *fore-leech*, and the hindmost the *after-leech*.

The heads of all four-sided sails, and the fore-leeches of lateen-sails, are attached to their respective yard or gaff by a number of small cords called *ro-bands*; and the extremities are tied to the yard-arms, or to the peck of the gaff, by earings.

The stay-sails are extended upon stays between the masts, whereon they are drawn up or down occasionally, as a curtain slides upon its rod, and their lower parts are stretched out by a tack and sheet. The clues of a top-sail are drawn out to the extremities of the lower yard, by two large ropes called the *top-sail sheets*; and the clues of the top-gallant sails are in like manner extended upon the top-sail yard-arms, as exhibited by fig. 2.

Fig. 2.

The studding-sails are set beyond the leeches or skirts of the main-sail and fore-sail, or of the top-sails or top-gallant sails of a ship. Their upper and lower edges are accordingly extended by poles run out beyond the extremities of the yards for this purpose. Those sails, however, are only set in favourable winds and moderate weather.

All sails derive their name from the mast, yard, or stay, upon which they are extended. Thus the principal sail extended upon the main-mast is called the *mainsail*, *d*; the next above, which stands upon the main-top mast, is termed the *main-top sail*, *e*; and the highest, which is spread across the main-top-gallant mast, is named the *main-top-gallant sail*, *f*.

In the same manner there is the fore-sail, *g*; the fore-top sail, *h*; and the fore-top-gallant sail, *i*; the mizen, *k*; the mizen-top sail, *l*; and mizen-top-gallant sail, *m*. Thus also there is the main-stay sail, *o*; main top-mast stay-sail, *p*; and main-top-gallant stay-sail, *q*; with a middle stay-sail which stands between the two last.

N. B. All these stay-sails are between the main and fore-masts.

The stay-sails between the main-mast and mizen-mast are the mizen stay-sail, *r*; and the mizen top-mast stay-sail, *s*; and sometimes a mizen top-gallant stay-sail above the latter.

The stay-sails between the foremast and the bow-sprit are the fore stay-sail, *t*; the fore top-mast stay-sail,

u;

Fig. 1.

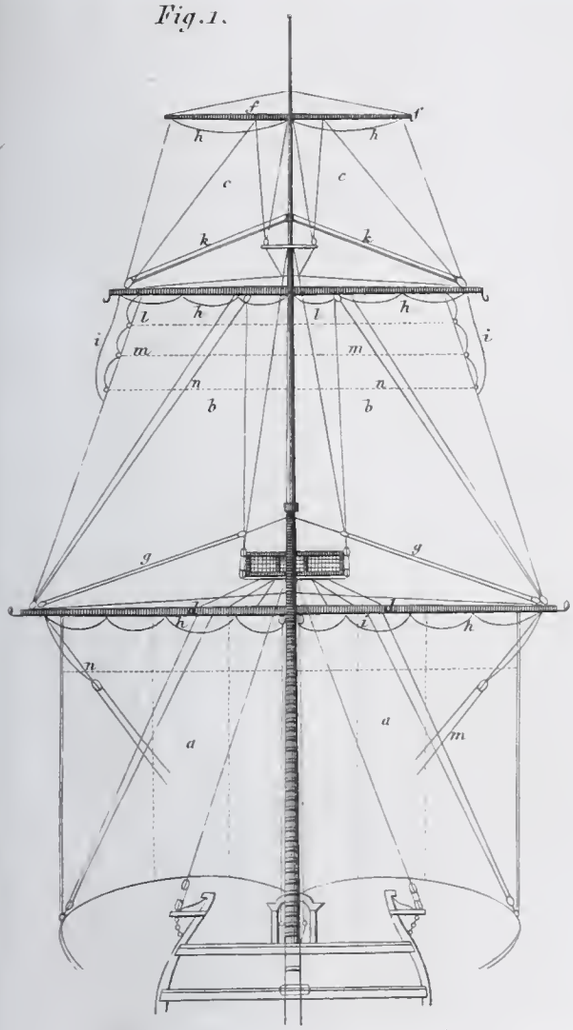
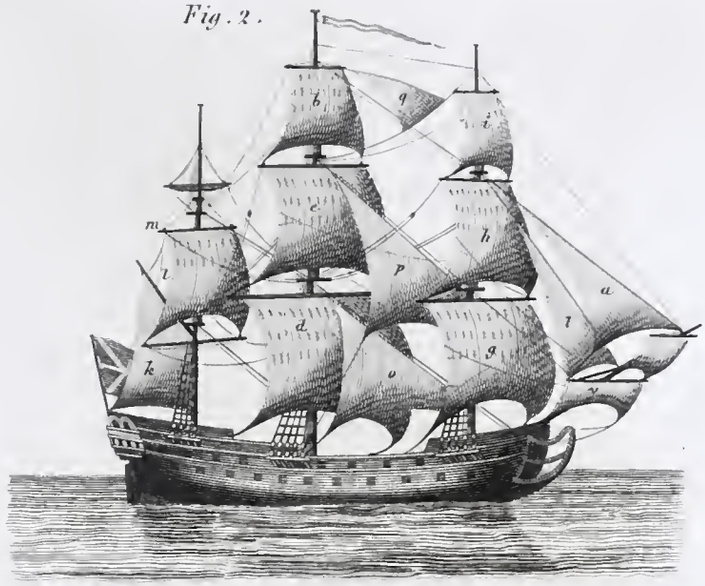


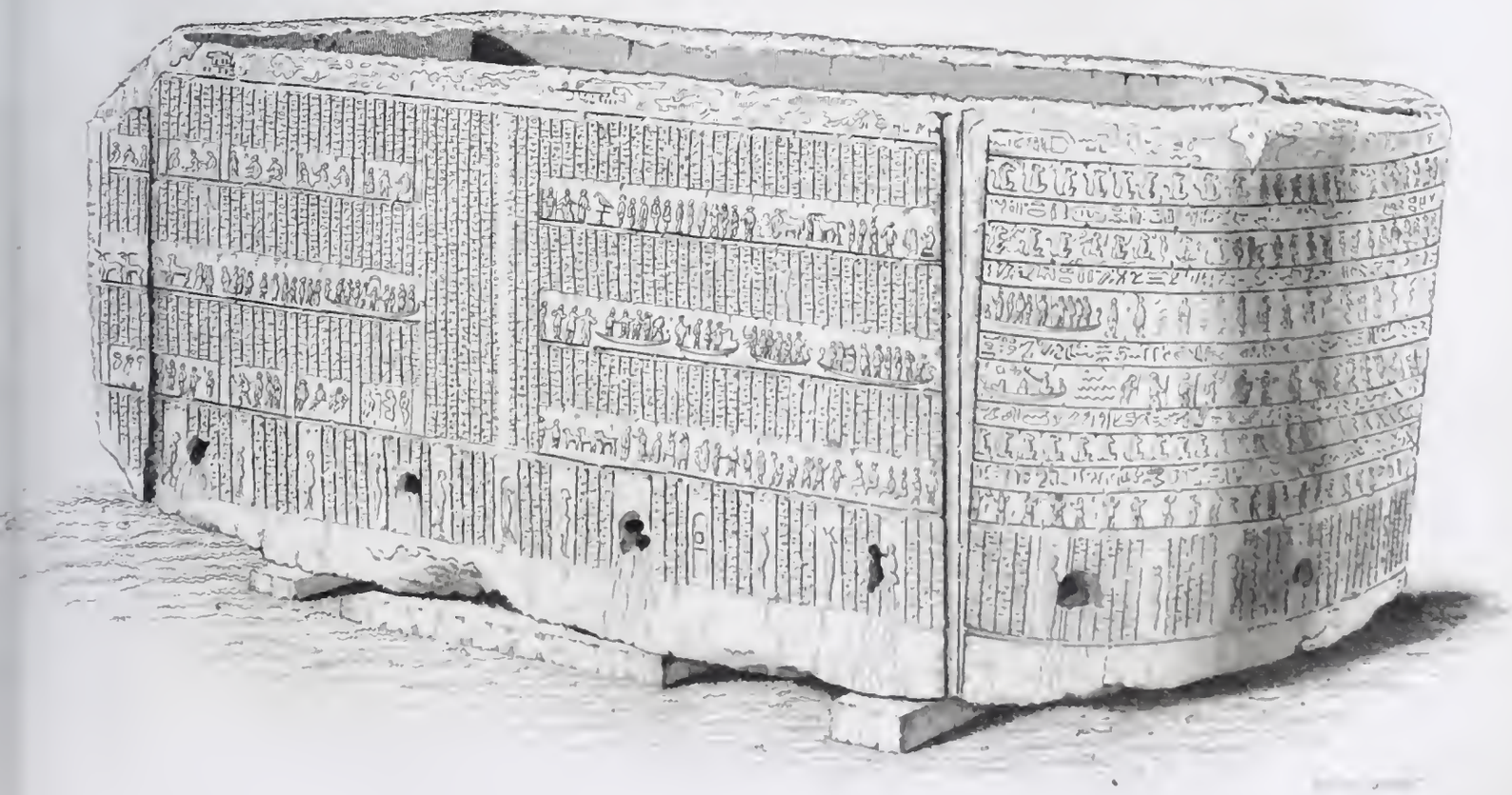
Fig. 2.



SAILING.

SARCOPHAGUS.

OF ALEXANDER THE GREAT.



u; and the jib, *x*. There is besides two square sails extended by yards under the bow-sprit, one of which is called the *sprit-sail*, *y*; and the other the *sprit-sail top-sail*, *z*.

The studding-sails being extended upon the different yards of the main-mast and fore-mast, are likewise named according to their stations, the *lower*, *top-mast*, or *top-gallant studding sails*.

The ropes by which the lower yards of a ship are hoisted up to their proper height on the masts, are called the *jears*. In all other sails the ropes employed for this purpose are called *haliards*.

The principal sails are then expanded by haliards, sheets, and bowlines; except the courses, which are always stretched out below by a tack and sheet. They are drawn up together, or trussed up, by bunt-lines, clue-lines, *d d*; leech-lines, *e e*; reef-tackles, *f f*; slab-line, *g*; and spiling-lines. As the bunt-lines and leech-lines pass on the other side of the sail, they are expressed by the dotted lines in the figure.

The courses, top-sails, and top-gallant sails, are wheeled about the mast, so as to suit the various directions of the wind, by braces. The higher studding-sails, and in general all the stay-sails, are drawn down, so as to be furled, or taken in, by down-hauls.

Some experienced sail-makers contend, that it would be of much advantage if many of the sails of ships were made of equal magnitude; in which case, when necessity required it, they could be interchangeably used. For example, as the mizen top-sail is now made nearly as large as the main top-gallant sail, it would be easy to make the yards, masts, and sails, so as mutually to suit each other. The main and fore-top sails differ about two feet at head and foot, and from one to three feet in depth. These likewise could be easily made alike, and in some cases they are so. The same may be said of the main and fore top-gallant sails, and of the mizen top-gallant sail, and main fore-royal. The main-sail and fore-sail might also, with respect to their head, be made alike; but as the former has a gore at the leech, and a larger gore at the foot for clearing it of the gallows, boats, &c. which the latter has not, there might be more difficulty in arranging them. The difficulty, however, appears not to be insurmountable. These alterations, it is thought, would be extremely useful in the event of losing sails by stress of weather. Fewer sails would be thus necessary, less room would be required to stow them, and there would be less danger of confusion in taking them out. But perhaps the utility of these alterations will be more felt in the merchant-service than in the navy, which latter has always a large store of spare sails, and sufficient room to stow them in order. Thus, too, spare yards and masts might be considerably reduced in number, and yet any casual damages more easily repaired at sea. Top-mast studding sails are occasionally substituted for awnings, and might, by a very little attention in planning the rigging of a ship, be so contrived as to answer both purposes. See SHIP-BUILDING.

SAIL is also a name applied to any vessel seen at a distance under sail, and is equivalent to ship.

To set SAIL, is to unfurl and expand the sails upon their respective yards and stays, in order to begin the action of sailing.

To Make SAIL, is to spread an additional quantity of sail, so as to increase the ship's velocity.

To shorten SAIL, is to reduce or take in part of the sails, with an intention to diminish the ship's velocity.

To Strike SAIL, is to lower it suddenly. This is particularly used in saluting or doing homage to a superior force, or to one whom the law of nations acknowledges as superior in certain regions. Thus all foreign vessels strike to a British man of war in the British seas.

SAILING, the movement by which a vessel is wafted along the surface of the water, by the action of the wind upon her sails.

When a ship changes her state of rest into that of motion, as in advancing out of a harbour, or from her station at anchor, she acquires her motion very gradually, as a body which arrives not at a certain velocity till after an infinite repetition of the action of its weight.

The first impression of the wind greatly affects the velocity, because the resistance of the water might destroy it; since the velocity being but small at first, the resistance of the water which depends on it will be very feeble: but as the ship increases her motion, the force of the wind on the sails will be diminished; whereas, on the contrary, the resistance of the water on the bow will accumulate in proportion to the velocity with which the vessel advances. Thus the repetition of the degrees of force, which the action of the sail adds to the motion of the ship, is perpetually decreasing; whilst, on the contrary, the new degrees added to the effort of resistance on the bow are always augmenting. The velocity is then accelerated in proportion as the quantity added is greater than that which is subtracted; but when the two powers become equal, when the impression of the wind on the sails has lost so much of its force, as only to act in proportion to the opposite impulse of resistance on the bow, the ship will then acquire no additional velocity, but continue to sail with a constant uniform motion. The great weight of the ship may indeed prevent her from acquiring her greatest velocity; but when she has attained it, she will advance by her own intrinsic motion, without gaining any new degree of velocity, or lessening what she has acquired. She moves then by her own proper force *in vacuo*, without being afterwards subject either to the effort of the wind on the sails, or to the resistance of the water on the bow. If at any time the impulsion of the water on the bow should destroy any part of the velocity, the effort of the wind on the sails will revive it, so that the motion will continue the same. It must, however, be observed, that this state will only subsist when these two powers act upon each other in direct opposition; otherwise they will mutually destroy one another. The whole theory of working ships depends on this counter action, and the perfect equality which should subsist between the effort of the wind and the impulsion of the water.

The effect of sailing is produced by a judicious arrangement of the sails to the direction of the wind. Accordingly the various modes of sailing are derived from the different degrees and situations of the wind with regard to the course of the vessel. See SEAMANSHIP.

Sail. To illustrate this observation by examples, the plan of a number of ships proceeding on various courses is represented by fig. 3. which exhibits the 32 points of the compass, of which C is the centre; the direction of the wind, which is northerly, being expressed by the arrow.

Fig. 3.

It has been observed in the article *Close-Hauled*, that a ship in that situation will sail nearly within six points of the wind. Thus the ships B and *y* are close-hauled: the former being on the larboard-tack, steering E. N. E. and the latter on the starboard-tack, sailing W. N. W. with their yards *a b* braced obliquely, as suitable to that manner of sailing. The line of battle on the larboard-tack would accordingly be expressed by CB, and on the starboard by C *y*.

When a ship is neither close-hauled, nor steering afore the wind, she is in general said to be sailing large. The relation of the wind to her course is precisely determined by the number of points between the latter and the course close-hauled. Thus the ships *c* and *x* have the wind one point large, the former steering E. *b* N. and the latter W. *b* N. The yards remain almost in the same position as in B and *y*; the bowlines and sheets of the sails being only a little slackened.

The ships *d* and *u* have the wind two points large, the one steering east and the other west. In this manner of sailing, however, the wind is more particularly said to be upon the beam, as being at right angles with the keel, and coinciding with the position of the ship's beams. The yards are now more across the ship, the bowlines are cast off, and the sheets more relaxed; so that the effort of the wind being applied nearer to the line of the ship's course, her velocity is greatly augmented.

In *e* and *t* the ships have the wind three points large, or one point abaft the beam, the course of the former being E. *b* S. and that of the latter W. *b* S. The sheets are still more flowing, the angle which the yards make with the keel further diminished, and the course accelerated in proportion.

The ships *f* and *s*, the first of which steers E. S. E. and the second W. S. W. have the wind four points large, or two points abaft the beam. In *g* and *r* the wind is five points large, or three points abaft the beam, the former sailing S. E. *b* E. and the latter S. W. *b* W. In both these situations the sheets are still farther slackened, and the yards laid yet more athwart the ship's length, in proportion as the wind approaches the quarter.

The ships *h* and *q*, steering S. E. and S. W. have the wind six points large, or more properly on the quarter; which is considered as the most favourable manner of sailing, because all the sails co-operate to increase the ship's velocity: whereas, when the wind is right aft, as in the ship *m*, it is evident that the wind in its passage to the foremost sails will be intercepted by those which are farther aft. When the wind is on the quarter, the fore-tack is brought to the cat-head; and the main-tack being cast off, the weather-clue of the main-sail is hoisted up to the yard, in order to let the wind pass freely to the fore-sail; and the yards are disposed so as to make an angle of about two points, or nearly 22°, with the keel.

The ships *i* and *p*, of which the former sails S. E. *b* S. and the latter S. W. *b* S. are said to have the wind three points on the larboard or starboard quarter: and those expressed by *k* and *o*, two points; as steering S. S. E. and S. S. W. in both which positions the yards make nearly an angle of 16°, or about a point and a half, with the ship's length.

When the wind is one point on the quarter, as in the ships *l* and *n*, whose courses are S. *b* E. and S. *b* W. the situation of the yards and sails is very little different from the last mentioned; the angle which they make with the keel being somewhat less than a point, and the stay-sails being rendered of very little service. The ship *m* sails right afore the wind, or with the wind right aft. In this position the yards are laid at right angles with the ship's length: the stay-sails being entirely useless, are hauled down; and the main-sail is drawn up in the brails, that the foresail may operate; a measure which considerably facilitates the steerage, or effort of the helm. As the wind is then intercepted by the main-top sail and main-top-gallant sail, in its passage to the fore-top sail and fore-top-gallant sail, these latter are by consequence entirely becalmed; and might therefore be furled, to prevent their being fretted by flapping against the mast, but that their effort contributes greatly to prevent the ship from broaching-to, when she deviates from her course to the right or left thereof.

Thus all the different methods of sailing may be divided into four, viz. close-hauled, large, quartering, and afore the wind; all which relate to the direction of the wind with regard to the ship's course, and the arrangement of the sails.

Sailing also implies a particular mode of navigation, formed on the principles, and regulated by the laws, of trigonometry. Hence we say, Plain Sailing, Mercator's, Middle-latitude, Parallel, and Great-circle Sailing. See the article Navigation.

SAIL-Making, the art of making sails. See Sail and Ship-building.

SAILOR, the same with Mariner and Seaman.

Saint. SAINT, means a person eminent for piety and virtue, and is generally applied by us to the apostles and other holy persons mentioned in Scripture. But the Romanists make its application much more extensive. Under the word Canonization we have already said something on their practice of creating saints. Our readers, however, will not, we trust, be displeased with the following more enlarged account, which they themselves give of the matter. The canonization of saints, then, they tell us, is the enrolment of any person in the *canon* or catalogue of those who are called *saints*; or, it is a judgment and sentence of the church, by which it is declared, that a deceased person was eminent for sanctity during his lifetime, and especially towards the end of it; and that consequently he must now be in glory with God, and deserves to be honoured by the church on earth with that veneration which she is wont to pay to the blessed in heaven.

The discipline with regard to this matter has varied. It would seem that in the first ages every bishop in his own diocese was wont to declare what persons were to be honoured as saints by his people. Hence St Cyprian, about the middle of the third century, B. 3. *ep.* 6. requires that he be informed of those who should die in prison for the faith, that so he might make mention of them in the holy sacrifice with the martyrs, and

and might honour them afterwards on the anniversary day of their happy death. This veneration continued sometimes to be confined to one country; but sometimes it extended to distant provinces, and even became universal all over the church. It was thus that St Laurence, St Ambrose, St Augustine, St Basil, and many others, appear to have been canonized by custom and universal persuasion. In those ages none were reckoned saints but the apostles, the martyrs, and very eminent confessors, whose sanctity was notorious everywhere.

Afterwards it appears that canonizations were wont to be performed in provincial synods under the direction of the metropolitan. It was thus that St Isidore of Seville was canonized in the 7th century, by the 8th council of Toledo, 14 years after his death. This manner of canonization continued occasionally down to the 12th century. The last instance of a saint canonized in that way, is that of St Walter abbot of Pontoise, who was declared a saint by the archbishop of Rouen in the year 1153.

In the 12th century, in order to prevent mistakes in so delicate a matter, Pope Alexander III. judged it proper to reserve this declaration to the Holy See of Rome exclusively; and decreed that no one should for the future be honoured by the church as a saint without the express approbation of the pope.

Since that time, the canonization of saints has been carried on in the form of a process; and there is at Rome a congregation of cardinals, called the *congregation of holy rites*, who are assisted by several divines under the name of *consultors*, who examine such matters, and prepare them for the decision of his holiness. When therefore any potentate, province, city, or religious body, think fit, they apply to the pope for the canonization of any person.

The first juridical step in this business must be taken by the bishop in whose diocese the person for whom the application is made had lived and died, who by his own authority calls witnesses to attest the opinion of the holiness, the virtues, and miracles, of the person in question. When the deceased has resided in different dioceses, it may be necessary that different bishops take such depositions; the originals of which are preserved in the archives of their respective churches, and authentic copies sealed up are sent to Rome by a special messenger, where they are deposited with the congregation of rites, and where they must remain for the space of ten years without being opened. They are then opened, and maturely examined by the congregation, and with their advice the pope allows the cause to go on or not as he thinks proper. The solicitors for the canonization are then referred by his holiness to the said congregation, which, with his authority, gives a commission to one or more bishops, or other respectable persons, to examine, on the spot and in the places where the person in question has lived and died, into his character and whole behaviour. These commissioners summon witnesses, take depositions, and collect letters and other writings of the venerable man, and get all the intelligence they can concerning him, and the opinion generally entertained of him. The report of these commissioners is considered attentively and at length by the congregation, and every part of it discussed by the consultors, when the congregation determines whether or not they can permit the process to go on. If it be allowed to proceed, a cardinal, who is called *ponent*, undertakes to be the principal agent in that affair. The first question then that comes to be examined is, whether or not the person proposed for canonization can be proved to have been in an eminent degree endued with the moral virtues of prudence, justice, fortitude, and temperance; and with the theological virtues of faith, hope, and charity? All this is canvassed with great deliberation; and there is a distinguished ecclesiastic called the *promoter of the holy faith*, who is sworn to make all reasonable objections to the proofs that are adduced in favour of the canonization. If the decision be favourable, then the proofs of miracles done to show the sanctity of the person in question are permitted to be brought forward; when two miracles must be verified to the satisfaction of the congregation, both as to the reality of the facts, and as to their having been truly above the power of nature. If the decision on this comes out likewise favourable, then the whole is laid before the pope and what divines he chooses (A). Public prayer and fasting are likewise prescribed, in order to obtain light and direction from heaven. After all this long procedure, when the pope is resolved to give his approbation, he issues a bull, first of *beatification*, by which the person is declared *blessed*, and afterwards another of *sanctification*, by which the name of *saint* is given him. These bulls are published in St Peter's church with very great solemnity.

A person remarkable for holiness of life, even before he is canonized, may be venerated as such by those who are persuaded of his eminent virtue, and his prayers may be implored; but all this must rest on private opinion. After his canonization, his name is inserted in the Martyrology, or catalogue of saints, of which the respective portion is read every day in the choir at the divine office. A day is also appointed for a yearly commemoration of him. His name may be mentioned in the public church service, and his intercession with God besought. His relics may be enshrined; he may be painted with rays of glory, and altars and churches may be dedicated to God in honour of him, and in thanksgiving to the divine goodness for the blessings bestowed on him in life, and for the glory to which he is raised in heaven.

The affair of a canonization is necessarily very expensive, because so many persons must be employed about it; so many journeys must be made; so many writings for and against it must be drawn out. The expense altogether amounts to about 25,000 Roman crowns, or 6000*l.* sterling. But it is generally contrived

(A) His holiness generally appoints three consistories; in the first of which the cardinals only assist, and give their opinion; in the second, a preacher pronounces a speech in praise of the candidate before a numerous audience; to the third, not only the cardinals, but all the bishops who are at Rome, are invited, and all of them give their vote by word of mouth.

Saint. Saintes.

trived to canonize two or three at a time, by which means the particular expense of each is very much lessened, the solemnity being common.

It often happens that the solicitors for a canonization are unsuccessful. Thus the Jesuits, even when their interest at Rome was greatest, could not obtain the canonization of Bellarmine; and it is remarkable, that the objection is said to have been, his having defended the indirect power of the pope over Christian princes even in temporals.

Several authors have written on canonization, and particularly Prosper Lambertini, afterwards pope under the name of Benedict XIV., who had held the office of *promoter of the faith* for many years. He published on it a large work in several volumes, in folio, of which there is an abridgement in French. In this learned performance there is a full history of the canonization of saints in general, and of all the particular processes of that kind that are on record: an account is given of the manner of proceeding in these extraordinary trials; and it is shown, that, besides the assistance of providence, which is implored and expected in what is so much connected with religion, all prudent human means are made use of, in order to avoid mistakes, and to obtain all the evidence of which the matter is susceptible, and which must appear more than sufficient to every impartial judge. See Pope, Popery, &c.

Saint Catharine, a Portuguese island in the South sea, not far distant from the coast of Brazil. It was visited by La Perouse, who ascertained it to lie between 27° 19′ 10″ and 27° 49′ N. Lat. and its most northerly point to lie in 49° 49′ W. Long. from Paris. Its breadth from east to west is only six miles, and it is separated from the main land by a channel only about 200 fathoms broad. On the point stretching farthest into this channel is situated the city of Nostra Señora del Destero, the metropolis of the government, and the place of the governor's residence. It contains about 400 houses, and 3000 inhabitants, and has an exceedingly pleasant appearance. In the year 1712, this island served as a retreat to vagabonds, who effected their escape from different parts of the Brazils, being only nominal subjects of Portugal. Its whole population has been estimated at 20,000. The soil is extremely fertile, producing all sorts of fruit, vegetables, and corn, almost spontaneously. The whale fishery is very successful; but it is the property of the crown, and is farmed by a company at Lisbon, which has three considerable establishments upon the coast. Every year they kill about 400 whales, the produce of which, both oil and spermaceti, is sent to Lisbon by the way of Rio Janeiro. The inhabitants are idle spectators of this fishery, from which they derive not the smallest advantage. A very amiable picture, however, is given of their hospitality to strangers, by M. La Perouse.

Saint-Foin, a species of hedysarum. See Hedysarum, Botany *Index*, and Agriculture *Index*.

SAINTES, an ancient and considerable town of France, in the department of Lower Charente. Before the revolution, it was a bishop's see. It contained likewise several convents, a Jesuits college, and an abbey remarkable for its steeple, which is said to be one of the loftiest in France. It is seated on an eminence, 37 miles south-east of Rochelle, and 262 south-south-west of Paris. W. Long. 0. 38. N. Lat. 45. 54. The castle is seated on a rock, and is reckoned impregnable. The population in 1800 was 10,162.

This city was a Roman colony; and those conquerors of the earth, who polished the nations they subdued, have left behind them the traces of their magnificence. In a hollow valley between two mountains, and almost adjoining to one of the suburbs, are the ruins of the amphitheatre. Though now in the last stage of decay, its appearance is august and venerable. In some parts, scarcely any of the arches are to be seen; but the east end is still in a great degree of preservation. From its situation in a valley, and from the ruins of an aqueduct which conveyed water to the town from near three leagues distance, it has been supposed that Naumachiæ were represented in it; but this amounts only to conjecture. A triumphal arch, on which is an inscription in Roman letters, merits likewise attention. It was erected to Germanicus, on the news of his death, so universally lamented throughout the empire. The river Charente surrounds this city, as the Severn does that of Shrewsbury, describing the form of a horse-shoe.

Except the remains of Roman grandeur yet visible at Saintes, the place contains very little to detain or amuse a traveller. It is built with great irregularity; the streets are narrow and winding, the houses mean, and almost all of them are some centuries old. The cathedral has been repeatedly defaced and destroyed by Normans and Huguenots, who made war alike on every monument of art or piety. One tower only escaped their rage, which is said to have been built as early as the year 800 by Charlemagne. It is of an enormous magnitude, both as to height and circumference. These circumstances have probably conduced more to its preservation during the fury of war, than any veneration for the memory of its founder, or for the sanctity of its institution.

SAINTOGNE, a province of France, now forming with the province of Aunis the department of Lower Charente, is bounded on the east by Angoumois and Perigord, on the north by Poitou and the territory of Aunis, on the west by the ocean, and on the south by Bourdelois and Giron, about 62 miles in length and 30 in breadth. The river Charente runs through the middle of it, and renders it one of the finest and most fertile provinces in France, abounding in all sorts of corn and fruits: and it is said the best salt in Europe is made here.

The SAINTS, are three small islands, three leagues distant from Guadaloupe, which form a triangle, and have a tolerable harbour. Thirty Frenchmen were sent hither in 1648, but were soon driven away by an excessive drought, which dried up their only spring before they had time to make any reservoirs. A second attempt was made in 1652, and permanent plantations were established, which now yield 50,000 weight of coffee, and 100,000 of cotton.

SAJENE, a Russian measure of length, equal to about seven English feet.

SAKRADAWENDRA is the name of one of the Ceylonese deities, who commands and governs all the rest, and formerly answered the prayers of his worshippers; but according to the fabulous account which is given of him, the golden chair on which he sat, and the foot of which was made of wax, that was softened by their prayers and tears, and sunk downward, so that he

Saintes || Sakradawendra.

he could take notice of their requests and relieve them, being disposed of among the poor, they no longer derive any benefit from him, or pay him any reverence. See BUDUN.

SAL. See SALT.

SALADIN, a famous sultan of Egypt, equally renowned as a warrior and legislator. He supported himself by his valour, and the influence of his amiable character, against the united efforts of the chief Christian potentates of Europe, who carried on the most unjust wars against him, under the false appellation of *Holy Wars*. See the articles EGYPT and CROISADE.

SALAMANCA, an ancient, large, rich, and populous city of Spain, in the kingdom of Leon, situated on the river Tormes, about 75 miles west from Madrid. It is said to have been founded by Teucer the son of Telamon, who called it *Salamis* or *Salmantica*, in memory of the ancient Salamis. Here is an university, the greatest in Spain, consisting of 24 colleges, and perhaps inferior to none in the whole world, in repect at least to its revenues, buildings, number of scholars, and masters. Here are also many grand and magnificent palaces, squares, convents, &c. Of the colleges in the university, four are appropriated to young men of quality; and near it is an infirmary for poor sick scholars. In the neighbourhood of this town a battle was fought on the 21st July 1812, between the British army under Lord Wellington, and the French army under Marshal Marmont, in which the latter was defeated with the loss of 7000 prisoners, and a vast number killed and wounded. The British loss amounted to 700 killed, and 4000 wounded. W. Long. 6. 10. N. Lat. 41. 0.

SALAMANDER. See LACERTA, ERPETOLOGY *Index*.

SALAMIS, an island of the Archipelago, situated in E. Long. 34. 0. N. Lat. 37. 32.—It was famous in antiquity for a battle between the Greek and Persian fleets. In the council of war held among the Persians on this occasion, all the commanders were for engaging, because they knew this advice to be most agreeable to the king's inclinations. Queen Artemisia was the only person who opposed this resolution. She was queen of Halicarnassus; and followed Xerxes in this war with five ships, the best equipped of any in the fleet, except those of the Sidonians. This princess distinguished herself on all occasions by her singular courage, and still more by her prudence and conduct. She represented, in the council of war we are speaking of, the dangerous consequence of engaging a people that were far more expert in maritime affairs than the Persians; alleging, that the loss of a battle at sea would be attended with the ruin of their army; whereas, by spinning out the war, and advancing into the heart of Greece, they would create jealousies and divisions among their enemies, who would separate from one another in order to defend each of them their own country; and that the king might, almost without striking a blow, make himself master of Greece. This advice, though very prudent, was not followed, but an engagement unanimously resolved upon. Xerxes, in order to encourage his men by his presence, caused a throne to be erected on the top of an eminence, whence he might safely behold whatever happened; having several scribes about him, to write down the names of such as should signalize themselves against the enemy. The approach of the Persian fleet, with the news that a strong detachment from the army was marching against Cleombrotus, who defended the isthmus, struck such a terror into the Pelopponesians, that they could not by any intreaties be prevailed upon to stay any longer at Salamis. Being therefore determined to put to sea, and sail to the isthmus, Themistocles privately dispatched a trusty friend to the Persian commanders, informing them of the intended flight; and exhorting them to send part of their fleet round the island, in order to prevent their escape. The same messenger assured Xerxes, that Themistocles, who had sent him that advice, designed to join the Persians, as soon as the battle began, with all the Athenian ships. The king giving credit to all he said, immediately caused a strong squadron to sail round the island in the night, in order to cut off the enemy's flight. Early next morning, as the Pelopponesians were preparing to set sail, they found themselves encompassed on all sides by the Persian fleet; and were against their will obliged to remain in the straits of Salamis and expose themselves to the same dangers with their allies. The Grecian fleet consisted of 380 sail, that of the Persians of 2000 and upwards. Themistocles avoided the engagement till a certain wind, which rose regularly every day at the same time, and which was entirely contrary to the enemy, began to blow. As soon as he found himself favoured by this wind, he gave the signal for battle. The Persians, knowing that they fought under their king's eye, advanced with great resolution; but the wind blowing directly in their faces, and the largeness and number of their ships embarrassing them in a place so strait and narrow, their courage soon abated; which the Greeks observing, used such efforts, that in a short time breaking into the Persian fleet, they entirely disordered them; some flying towards Phalarus where their army lay encamped; others saving themselves in the harbours of the neighbouring islands. The Ionians were the first that betook themselves to flight. But Queen Artemisia distinguished herself above all the rest, her ships being the last that fled: which Xerxes observing, cried out that the men behaved like women, and the women with the courage and intrepidity of men. The Athenians were so incensed against her, that they offered a reward of 10,000 drachmas to any one that should take her alive: but she, in spite of all their efforts, got clear of the ships that pursued her, and arrived safe on the coast of Asia. In this engagement, which was one of the most memorable actions we find recorded in history, the Grecians lost 40 ships; and the Persians 200, besides a great many more that were taken, with all the men and ammunition they carried.

The island of Salamis is of a very irregular shape; it was reckoned 70 or 80 stadia, *i. e.* 8 or 10 miles, long, reaching westward as far as the mountains called *Kerata*, or *The Horns*. Pausanias informs us, that on one side of this island stood in his time a temple of Diana, and on the other a trophy for a victory obtained by Themistocles, together with the temple of Cychreus, the site of which is now thought to be occupied by the church of St Nicholas.

The city of Salamis was demolished by the Athenians, because in the war with Cassander it surrendered to the Macedonians, from disaffection. In the second century, when it was visited by Pausanias, some ruins of the Agora or market-place remained, with a temple and image of Ajax; and not far from the port was shown a stone, on

on which, they related, Telamon sat to view the Salaminian ships on their departure to join the Grecian fleet at Aulis. The walls may still be traced, and it has been conjectured were about four miles in circumference. The level space within them was now covered with green corn. The port is choked with mud, and was partly dry. Among the scattered marbles are some with inscriptions. One is of great antiquity, before the introduction of the Ionic alphabet. On another, near the port, the name of Solon occurs. This renowned lawgiver was a native of Salamis, and a statue of him was erected in the market-place, with one hand covered by his vest, the modest attitude in which he was accustomed to address the people of Athens. An inscription on black marble was also copied in 1676 near the ruin of a temple, probably that of Ajax. The island of Salamis is now inhabited by a few Albanians, who till the ground. Their village is called *Ampelaki*, "the Vineyard," and is at a distance from the port, standing more inland. In the church are marble fragments and some inscriptions.

SALARY, a recompense or consideration made to a person for his pains and industry in another man's business. The word is used in the statute 23 Edw. III. cap. 1. *Salarium* at first signified the rents or profits of a salle, hall, or house (and in Gascoigne they now call the seats of the gentry *sala's*, as we do *halls*); but afterwards it was taken for any wages, stipend, or annual allowance.

SALACIA, a genus of plants belonging to the gynandria class. See Botany *Index*.

SALE, is the exchange of a commodity for money: barter, or permutation, is the exchange of one commodity for another. When the bargain is concluded, an obligation is contracted by the buyer to pay the value, and by the seller to deliver the commodity, at the time and place agreed on, or immediately, if no time be specified.

In this, as well as other mercantile contracts, the safety of commerce requires the utmost good faith and veracity. Therefore, although by the laws of England, a sale above the value of 10*l.* be not binding, unless earnest be paid, or the bargain confirmed by writing, a merchant would lose all credit who refused to perform his agreement, although these legal requisites were omitted.

When a specific thing is sold, the property, even before delivery, is in some respect vested in the buyer; and if the thing perishes, the buyer must bear the loss. For example, if a horse dies before delivery, he must pay the value: but if the bargain only determines the quantity and quality of the goods, without specifying the identical articles, and the seller's warehouse, with all his goods, be burned, he is intitled to no payment. He must also bear the loss if the thing perish through his fault; or when a particular time and place of delivery is agreed on, if it perish before it be tendered in terms of the bargain.

If a person purchase goods at a shop without agreeing for the price, he is liable for the ordinary market-price at the time of purchase.

If the buyer proves insolvent before delivery, the seller is not bound to deliver the goods without payment or security.

If the importation, or use of the commodities sold, be prohibited by law, or if the buyer knows that they were smuggled, no action lies for delivery.

The property of goods is generally presumed, in favour of commerce, to belong to the possessor, and cannot be challenged in the hands of an onerous purchaser. But to this there are some exceptions. By the Scots law, stolen goods may in all cases be reclaimed by the proprietor, and also by the English law, unless they were bought *bona fide* in open market; that is, in the accustomed public places, on stated days, in the country, or in a shop in London; and horses may be reclaimed, unless the sale be regularly entered by the book-keeper of the market. In all cases, if the goods be evicted by the lawful proprietor, the seller is liable to the purchaser for the value.

Actions for payment of shop-accounts, as well as other debts not constituted by writing, are limited in England to six years. The testimony of one witness is admitted; and the seller's books, although the person that kept them be dead, are good evidence for one year. In Scotland, merchants books may be proved within three years of the date of the last article, by one witness, and the creditors books and oath in supplement. After three years, they can only be proved by the oath or writ of the debtor. A merchant's books are in all cases good evidence against him.

SALEP, in the *Materia Medica*, the dried root of a species of orchis. See Orchis, Botany *Index*.

Several methods of preparing salep have been proposed and practised. Geoffroy has delivered a very judicious process for this purpose in the *Histoire de l'Academie Royale des Sciences*, 1740; and Retmus, in the Swedish Transactions, 1764, has improved Geoffroy's method. But Mr Moult of Rochdale has lately favoured the public with a new manner of curing the orchis root; by which salep is prepared, at least equal, if not superior, to any brought from the Levant. The new root is to be washed in water; and the fine brown skin which covers it is to be separated by means of a small brush, or by dipping the root in hot water, and rubbing it with a coarse linen cloth. When a sufficient number of roots have been thus cleaned, they are to be spread on a tin-plate, and placed in an oven heated to the usual degree, where they are to remain six or ten minutes, in which time they will have lost their milky whiteness, and acquired a transparency like horn, without any diminution of bulk. Being arrived at this state, they are to be removed, in order to dry and harden in the air, which will require several days to effect; or by using a very gentle heat, they may be finished in a few hours.

Salep thus prepared, may be afforded in those parts of England where labour bears a high value, at about eightpence or tenpence per pound: and it might be sold still cheaper, if the orchis were to be cured, without separating from it the brown skin which covers it; a troublesome part of the process, and which does not contribute to render the root either more palatable or salutary; whereas the foreign salep is now sold at five or six shillings per pound.

Salep is said to contain the greatest quantity of vegetable nourishment in the smallest bulk. Hence a very judicious writer, to prevent the dreadful calamity of famine at sea, has lately proposed that the powder of it should constitute part of the provisions of every ship's company.

company. This powder and portable soup, dissolved in boiling water, form a rich thick jelly, capable of supporting life for a considerable length of time. An ounce of each of these articles, with two quarts of boiling water, will be sufficient subsistence for a man a-day; and as being a mixture of animal and vegetable food, must prove more nourishing than double the quantity of rice-cake, made by boiling rice in water: which last, however, sailors are often obliged solely to subsist upon for several months; especially in voyages to Guinea, when the bread and flour are exhausted, and the beef and pork, having been salted in hot countries, are become unfit for use.

"But as a wholesome nourishment (says Dr Percival*), rice is much inferior to salep. I digested several alimentary mixtures prepared of mutton and water, beat up with bread, sea-biscuit, salep, rice-flower, sago-powder, potato, old cheese, &c. in a heat equal to that of the human body. In 48 hours they had all acquired a vinous smell, and were in brisk fermentation, except the mixture with rice, which did not emit many air-bubbles, and was but little changed. The third day several of the mixtures were sweet, and continued to ferment; others had lost their intestine motion, and were sour; but the one which contained the rice was become putrid. From this experiment it appears, that rice as an aliment is slow of fermentation, and a very weak corrector of putrefaction. It is therefore an improper diet for hospital-patients; but more particularly for sailors in long voyages; because it is incapable of preventing, and will not contribute much to check, the progress of that fatal disease, the sea scurvy. Under certain circumstances, rice seems disposed, of itself, without mixture, to become putrid; for by long keeping it sometimes acquires an offensive fœtor. Nor can it be considered as a very nutritive kind of food, on account of its difficult solubility in the stomach. Experience confirms the truth of this conclusion; for it is observed by the planters in the West Indies, that the negroes grow thin, and are less able to work, whilst they subsist upon rice.

"Salep has the singular property of concealing the taste of salt water; a circumstance of the highest importance at sea, when there is a scarcity of fresh water. I dissolved a dram and a half of common salt in a pint of the mucilage of salep, so liquid as to be potable, and the same quantity in a pint of spring water. The salep was by no means disagreeable to the taste, but the water was rendered extremely unpalatable. This experiment suggested to me the trial of the orchis root as a corrector of acidity, a property which would render it a very useful diet for children. But the solution of it, when mixed with vinegar, seemed only to dilute like an equal proportion of water, and not to cover its sharpness. Salep, however, appears by my experiments to retard the acetous fermentation of milk; and consequently would be a good lithing for milk-pottage, especially in large towns, where the cattle being fed upon sour draff must yield acescent milk.

"Salep in a certain proportion, which I have not yet been able to ascertain, would be a very useful and profitable addition to bread. I directed one ounce of the powder to be dissolved in a quart of water, and the mucilage to be mixed with a sufficient quantity of flour, salt, and yeast. The flour amounted to two pounds, the yeast to two ounces, and the salt to 80 grains. The loaf when baked was remarkably well fermented, and weighed three pounds two ounces. Another loaf, made with the same quantity of flour, &c. weighed two pounds and 12 ounces; from which it appears that the salep, though used in so small a proportion, increased the gravity of the loaf six ounces, by absorbing and retaining more water than the flour alone was capable of. Half a pound of flour and an ounce of salep were mixed together, and the water added according to the usual method of preparing bread. The loaf when baked weighed 13 ounces and a half; and would probably have been heavier if the salep had been previously dissolved in about a pint of water. But it should be remarked, that the quantity of flour used in this trial was not sufficient to conceal the peculiar taste of the salep.

"The restorative, mucilaginous, and demulcent qualities of the orchis root, render it of considerable use in various diseases. In the sea scurvy it powerfully obtunds the acrimony of the fluids, and at the same time is easily assimilated into a mild and nutritious chyle. In diarrhœas and the dysentery it is highly serviceable, by sheathing the internal coat of the intestines, by abating irritation, and gently correcting putrefaction. In the symptomatic fever, which arises from the absorption of pus from ulcers in the lungs, from wounds, or from amputation, salep used plentifully is an admirable demulcent, and well adapted to resist the dissolution of the crasis of the blood, which is so evident in these cases. And by the same mucilaginous quality, it is equally efficacious in the strangury and dysury; especially in the latter, when arising from a venereal cause, because the discharge of urine is then attended with the most exquisite pain, from the ulceration about the neck of the bladder and through the course of the urethra. I have found it also an useful aliment for patients who labour under the stone or gravel." The ancient chemists appear to have entertained a very high opinion of the orchis root, as appears from the *secreta secretorum* of Raymund Lully, a work dated 1565.

* *Essays Medical and Experimental.*

SALERNO, an ancient and considerable town of Italy, in the kingdom of Naples, and capital of the Hither Principato, with an archbishop's see, a castle, harbour, and an university chiefly for medicine. It is seated at the bottom of a bay of the same name. E. Long. 14. 53. N. Lat. 40. 35.

SALET, in *War*, a light covering or armour for the head, anciently worn by the light-horse, only different from the casque in that it had no crest and was little more than a bare cap.

SALIANT, in *Fortification*, denotes projecting. There are two kinds of angles, the one saliant, which have their points outwards; the other, re-entering, which have their points inwards.

SALIANT, SALIENT, or SAILLANT, in *Heraldry*, is applied to a lion, or other beast, when its fore-legs are raised in a leaping posture.

SALIC, or SALIQUE, LAW, (*Lex Salica*), an ancient and fundamental law of the kingdom of France, usually supposed to have been made by Pharamond, or at least by Clovis; in virtue of which males only are to inherit.

Some, as Postellus, would have it to have been called *Salic*, q. d. *Gallic*, because peculiar to the Gauls. Fer. Montanus insists, it was because Pharamond was at first called *Salicus*. Others will have it to be so named, as having been made for the salic lands. These were noble fiefs which their first kings used to bestow on the sallians, that is, the great lords of their salle or court, without any other tenure than military service; and for this reason, such fiefs were not to descend to women, as being by nature unfit for such a tenure. Some, again, derive the origin of this word from the Salians, a tribe of Franks that settled in Gaul in the reign of Julian, who is said to have given them lands on condition of their personal service in war. He even passed the conditions into a law, which the new conquerors acquiesced in, and called it *salic*, from the name of their former countrymen.

SALICORNIA, Jointed Glass-wort, or *Saltwort;* a genus of plants belonging to the monandria class, and in the natural method ranking under the 12th order, *Holoraceæ*. See Botany *Index*.

The inhabitants near the sea-coasts where these plants grow, cut them up toward the latter end of summer, when they are fully grown; and, after having dried them in the sun, they burn them for their ashes, which are used in making glass and soap. These herbs are by the country people called *kelp*, and promiscuously gathered for use.

SALII, in Roman antiquity, priests of Mars, whereof there were 12, instituted by Numa, wearing painted, particoloured garments, and high bonnets; with a steel cuirasse on the breast. They were called *salii*, from *saltare*, "to dance;" because, after assisting at sacrifices, they went dancing about the streets, with bucklers in their left hand, and a rod in their right, striking musically with their rods on one another's bucklers, and singing hymns in honour of the gods.

SALINO, one of the Lipari islands, situated between Sicily and Italy, consists of two mountains, both in an high state of cultivation. The one lying more towards the north than the other is rather the highest of the two, and is called *del Capo*, "the head." The other is called *della Fossa felice*, or the "happy valley." One third of the extent of these hills from the bottom to the summit is one continued orchard, consisting of vines, olive, fig, plum, apricot, and a vast diversity of other trees. The white roofs of the houses, which are everywhere interspersed amid this diversity of verdure and foliage, contribute to variegate the prospect in a very agreeable manner. The back part of almost all the houses is shaded by an arbour of vines, supported by pillars of brick, with cross poles to sustain the branches and foliage of the vines. Those arbours shelter the houses from the rays of the sun, the heat of which is quite scorching in these southern regions. The vines are extremely fruitful; the poles bending under the weight of the grapes.

The scenes in this island are more interesting to the lover of natural history than to the antiquarian. See Reticulum.

On the south side of the island, however, there are still to be seen some fine ruins of an ancient bath, a Roman work. They consist of a wall 10 or 11 fathoms in extent, and terminating in an arch of no great height, of which only a small part now remains. The building seems to have been reduced to its present state rather by the ravages of men than the injuries of time. Almost all the houses in the island are built of materials which have belonged to ancient monuments. The ancients had, in all probability, baths of fresh as well as of salt water in this island; for whenever the present inhabitants have occasion for a spring of fresh water, they have only to dig a pit on the shore, and pure sweet water flows in great abundance.

There were formerly mines of alum here, from which the inhabitants drew a very considerable yearly revenue. But whether they are exhausted, or whatever circumstance may have caused them to be given up, they are now no longer known. The island abounds in a variety of fruits.

On the east side it is very populous. There are two places which are both called *Lingua*, "the tongue," and which contain a good number of inhabitants; the one is near Salino, the other is distinguished by the name of *St Marina:* there are, besides these, two other villages. All these places together may contain about 4000 inhabitants: the circumference of the island may be about 14 miles.

SALISBURY, the capital of the county of Wiltshire in England, situated in W. Long. 1. 55. N. Lat. 51. 3. This city owed its first rise to its cathedral, which was begun in 1219, and finished in 1258. According to an estimate delivered in to Henry III., it cost forty thousand merks. It is a Gothic building, and is certainly the most elegant and regular in the kingdom. The doors and chapels are equal in number to the months, the windows to the days, and the pillars and pilasters to the hours in a year. It is built in the form of a lantern, with a spire in the middle, and nothing but buttresses and glass windows on the outside. The spire is the highest in the kingdom, being 410 feet, which is twice the height of the Monument in London. The pillars and pilasters in the church are of fusile marble; the art of making which is now either entirely lost or little known. This magnificent church has lately undergone most beautiful alterations; with an addition of two fine windows, and an organ presented by the king. The roof of the chapter house, which is 50 feet in diameter and 150 in circumference, bears entirely upon one slender pillar, which is such a curiosity as can hardly be matched in Europe. The turning of the western road through the city in the reign of Edward III. was a great advantage to it. The chancellorship of the most noble order of the Garter, which is annexed to this see, was first conferred on Bishop Richard Beauchamp. The hospital of St Michael's, near this city, was founded by one of its bishops. Dr Seth Ward, bishop of this see in the reign of Charles II., contributed greatly to the making the river Avon navigable to Christ-church in Hampshire. The same prelate, in 1683, built an hospital for the entertainment of the widows of poor clergymen. There are three other churches besides the cathedral, which is without the liberty of the city, and a greater number of boarding schools, especially for young ladies, than in any other town in England. Here is a manufacture of druggets, flannels, bonelace, and those cloths called *Salisbury whites;* in consideration of which, and its fairs, markets, assizes, boarding-

boarding-schools, and clergy, the city may be justly said to be in a flourishing condition. It was incorporated by Henry III.; and is governed by a mayor, high-steward, recorder, deputy-recorder, 24 aldermen, and 30 assistants or common-council men. The number of souls, in 1811, was 8243. A new council chamber, with proper courts of justice, was built here in the year 1794 by the earl of Radnor; to which Mr Hussey was also a great benefactor. That quarter called the *Close*, where the canons and prebendaries live, is like a fine city of itself. In this town are several charity-schools; the expense of one of them is entirely defrayed by the bishop. The city gives title of earl to the noble family of Cecil.

Salisbury Plain. The extensive downs in Wiltshire, which are thus denominated, form in summer one of the most delightful parts of Great Britain for extent and beauty. It extends 28 miles west of Weymouth, and 25 east to Winchester; and in some places is near 40 miles in breadth. That part about Salisbury is a chalky down, and is famous for feeding numerous flocks of sheep. Considerable portions of this tract are now enclosing, the advantages of which are so great, that it is hoped the whole will undergo so beneficial a change. This plain contains, beside the famous Stonehenge, numerous other remains of antiquity.

SALIVA, is that fluid by which the mouth and tongue are continually moistened in their natural state; and is supplied by glands which form it, that are called *salivary glands.* This humour is thin and pellucid, incapable of being concreted by the fire, almost without taste and smell. By chewing, it is expressed from the glands which separate it from the blood, and is intimately mixed with our food, the digestion of which it greatly promotes. In hungry persons it is acrid, and copiously discharged; and in those who have fasted long it is highly acrid, penetrating, and resolvent. A too copious evacuation of it produces thirst, loss of appetite, bad digestion, and an atrophy.

SALIVATION, in *Medicine*, a promoting of the flux of saliva, by means of medicines, mostly by mercury. The chief use of salivation is in diseases belonging to the glands and membrana adiposa, and principally in the cure of the venereal disease; though it is sometimes also used in epidemic diseases, cutaneous diseases, &c. whose crises tend that way.

SALIX, the Willow, a genus of plants belonging to the diœcia class; and in the natural method ranking under the 50th order, *Amentaceæ.* See Botany *Index.*

Willow trees have been frequently the theme of poetical description, both in ancient and modern times. In Virgil, Horace, and in Ovid, we have many exquisite allusions to them and their several properties; and for a melancholy lover or a contemplative poet, imagination cannot paint a fitter retreat than the banks of a beautiful river, and the shade of a drooping willow. The Babylonica, Babylonian pendulous salix, commonly called *weeping willow*, grows to a large size, having numerous, long, slender, pendulous branches, hanging down loosely all round in a curious manner, and long, narrow, spear-shaped, serrated, smooth leaves. This curious willow is a native of the east, and is retained in our hardy plantations for ornament; and exhibits a most agreeable variety, particularly when disposed singly by the verges of any piece of water, or in spacious openings of grass ground.

All the species of salix are of the tree kind, very hardy, remarkably fast growers, and several of them attaining a considerable stature when permitted to run up to standards. They are mostly of the aquatic tribe, being generally the most abundant and of most prosperous growth in watery situations: they however will grow freely almost anywhere, in any common soil and exposure; but grow considerably the fastest and strongest in low moist land, particularly in marshy situations, by the verges of rivers, brooks, and other waters; likewise along the sides of watery ditches, &c.; which places often lying waste, may be employed to good advantage, in plantations of willows, for different purposes.

SALLEE, an ancient and considerable town of Africa in the kingdom of Fez, with a harbour and several forts. The harbour of Sallee is one of the best in the country; and yet, on account of a bar that lies across it, ships of the smallest draught are forced to unload and take out their guns before they can get into it. There are docks to build ships; but they are hardly ever used, for want of skill and materials. It is a large place, divided by the river Guero into the Old and New Towns. It has long been famous for its rovers or pirates, which make prizes of all Christian ships that come in their way, except there is a treaty to the contrary. The town of Sallee in its present state, though large, presents nothing worthy the observation of the traveller, except a battery of 24 pieces of cannon fronting the sea, and a redoubt at the entrance of the river, which is about a quarter of a mile broad, and penetrates several miles into the interior country. W. Long. 6. 30. N Lat. 34. 0.

SALLET, or Salad, a dish of eatable herbs, ordinarily accompanying roast meat; composed chiefly of crude fresh herbage, seasoned with salt, oil, and vinegar.

Menage derives the word from the Latin *salata;* of *sal,* "salt;" others from *salcedo;* Du-Cange from *salgama*, which is used in Ausonius and Columella in the same sense.

Some add mustard, hard eggs, and sugar; others, pepper, and other spices, with orange-peel, saffron, &c.

The principal sallet-herbs, and those which ordinarily make the basis of our English sallets, are lettuce, celery, endive, cresses, radish, and rape; along with which, by way of furniture, or additionals, are used purslane, spinach, sorrel, tarragon, burnet, corn-sallet, and chervil.

The gardeners call some plants *small herbs* in sallets; these should always be cut while in the seed-leaf: as cresses, mustard, radish, turnip, spinach, and lettuce; all which are raised from seeds sown in drills, or lines, from the middle of February to the end of March, under glasses or frames; and thence to the middle of May, upon natural beds, warmly exposed; and during the summer heats in more shady places; and afterwards in September, as in March, &c.; and lastly, in the rigour of the winter, in hot-beds. If they chance to be frozen in very frosty weather, putting them in spring-water two hours before they are used, recovers them.

SALLO, Denis de, a French writer, famous for being

being the projector of literary journals, was born at Paris in 1626. He studied the law, and was admitted a counsellor in the parliament of Paris in 1652. It was in 1664 he schemed the plan of the *Journal des Sçavans*; and the year following began to publish it under the name of Sieur de Heronville, which was that of his valet de chambre. But he played the critic so severely, that authors, surprised at the novelty of such attacks, retorted so powerfully, that M. de Sallo, unable to weather the storm, after he had published his third Journal, declined the undertaking, and turned it over to the abbé Gallois; who, without presuming to criticise, contented himself merely with giving titles, and making extracts. Such was the origin of literary journals, which afterwards sprang up in other countries under different titles; and the success of them, under judicious management, is a clear proof of their utility. M. de Sallo died in 1669.

SALLUSTIUS, Caius Crispus, a celebrated Roman historian, was born at Amiternum, a city of Italy, in the year of Rome 669, and before Christ 85. His education was liberal, and he made the best use of it. His Roman history in six books, from the death of Sylla to the conspiracy of Catiline, the great work from which he chiefly derived his glory among the ancients, is unfortunately lost excepting a few fragments; but his two detached pieces of history which happily remain entire are sufficient to justify the great encomiums he has received as a writer.—He has had the singular honour to be twice translated by a royal hand: first by our Elizabeth, according to Camden; and secondly, by the present Infant of Spain, whose version of this elegant historian, lately printed in folio, is one of the most beautiful books that any country has produced since the invention of printing. No man has inveighed more sharply against the vices of his age than this historian; yet no man had fewer pretensions to virtue. His youth was spent in a most lewd and profligate manner; and his patrimony almost squandered away when he had scarcely taken possession of it. Marcus Varro, a writer of undoubted credit, relates, in a fragment preserved by Aulus Gellius, that Sallust was actually caught in bed with Fausta the daughter of Sylla, by Milo her husband; who scourged him very severely, and did not suffer him to depart till he had redeemed his liberty with a considerable sum. A. U. C. 694, he was made questor, and in 702 tribune of the people; in neither of which places is he allowed to have acquitted himself at all to his honour. By virtue of his questorship, he obtained an admission into the senate; but was expelled thence by the censors in 704, on account of his immoral and debauched way of life. In the year 705 Cæsar restored him to the dignity of a senator; and to introduce him into the house with a better grace, made him questor a second time. In the administration of this office he behaved himself very scandalously: exposed every thing to sale for which he could find a purchaser; and if we may believe the author of the invective, thought nothing wrong which he had a mind to do: *Nihil non venale habuerit, cujus aliquis emptor fuit, nihil non æquum et verum duxit, quod ipsi facere collibuisset.* In the year 707, when the African war was at an end, he was made prætor for his services to Cæsar, and sent to Numidia. Here he acted the same part as Verres had done in Sicily; outragcously plundered the province; and returned with such immense riches to Rome that he purchased a most magnificent building upon Mount Quirinal, with those gardens which to this day retain the name of *Sallustian gardens*, besides his country house at Tivoli. How he spent the remaining part of his life we have no account from ancient writers. Eusebius tells us that he married Terentia, the divorced wife of Cicero; and that he died at the age of 50, in the year 710, which was about four years before the battle of Actium. Of the many things which he wrote, besides his histories of the Catilinarian and Jugurthine wars, we have some orations or speeches, printed with his fragments.

SALLY-ports, in fortification, or *Postern Gates*, as they are sometimes called, are those under-ground passages which lead from the inner works to the outward ones; such as from the higher flank to the lower, or to the tenailles, or the communication from the middle of the curtain to the ravelin. When they are made for men to go through only, they are made with steps at the entrance and going out. They are about 6 feet wide and 8½ feet high. There is also a gutter or shore made under the sally-ports, which are in the middle of the curtains, for the water which runs down the streets to pass into the ditch; but this can only be done when they are wet ditches. When sally-ports serve to carry guns through them for the out-works, instead of making them with steps, they must have a gradual slope, and be 8 feet wide.

SALMASIUS, Claudius, a French writer of uncommon abilities and immense erudition, descended from an ancient and noble family, and born at or near Semur in 1596. His mother, who was a Protestant, infused her notions of religion into him, and he at length converted his father: he settled at Leyden; and in 1650 paid a visit to Christina queen of Sweden, who is reported to have shown him extraordinary marks of regard. Upon the violent death of Charles I. of England, he was prevailed on by the royal family, then in exile, to write a defence of that king; which was answered by our famous Milton in 1651, in a work intitled *Defensio pro Populo Anglicano contra Claudii Salmasii Defensionem Regiam.* This book was read over all Europe; and conveyed such a proof of the writer's abilities, that he was respected even by those who hated his principles. Salmasius died in 1653; and some did not scruple to say, that Milton killed him by the acuteness of his reply. His works are numerous, and of various kinds; but the greatest monuments of his learning are, his *Notæ in Historiæ Augustæ Scriptores*, and his *Exercitationes Plinianæ in Solinum.*

SALMO, the Salmon; a genus of fishes belonging to the order of abdominales. See Ichthyology *Index.*

SALMON. See Salmo, Ichthyology *Index.*

Salmon-Fishery. See *Salmon-Fishery.*

SALON, or Saloon, in architecture, a lofty, spacious sort of hall, vaulted at top, and usually comprehending two stories, with two ranges of windows.

The saloon is a grand room in the middle of a building, or at the head of a gallery, &c. Its faces, or sides, are all to have a symmetry with each other; and as it usually takes up the height of two stories, its ceiling, Daviler observes, should be with a moderate sweep.

The

Salon || Salsette.

The saloon is a state room much used in the palaces in Italy; and from thence the mode came to us. Ambassadors, and other great visitors, are usually received in the saloon.

It is sometimes built square, sometimes round or oval, sometimes octagonal, as at Marly, and sometimes in other forms.

SALONA, a sea-port town of Dalmatia, seated on a bay of the gulf of Venice. It was formerly a very considerable place, and its ruins show that it was 10 miles in circumference. It is 18 miles north of Spalatto, and subject to Venice. It is now a wretched village, preserving few distinguishable remains of its ancient splendour. Doubtless the two last ages have destroyed all that had escaped the barbarity of the northern nations that demolished it. In a valuable MS. relation of Dalmatia, written by the senator Giambattista Guistiniani, about the middle of the 16th century, there is a hint of what existed at the time. "The nobility, grandeur, and magnificence of the city of Salona, may be imagined from the vaults and arches of the wonderful theatre, which are seen at this day; from the vast stones of the finest marble, which lie scattered on, and buried in the fields; from the beautiful column of three pieces of marble, which is still standing in the place where they say the arsenal was, towards the seashore; and from the many arches of surprising beauty, supported by very high marble columns: the height of the arches is a stone-throw, and above them there was an aqueduct, which reached from Salona to Spalatro. There are to be seen many ruins and vestiges of large palaces, and many ancient epitaphs may be read on fine marble stones; but the earth, which is increased, has buried the most ancient stones, and the most valuable things." E. Long. 17. 29. N. Lat. 24. 10.

Fortis's Travels in Dalmatia.

SALONICHI, formerly called *Thessalonica*, a seaport town of Turkey in Europe, and capital of Macedonia, with an archbishop's see. It is ancient, large, populous, and rich, being about 10 miles in circumference. It is a place of great trade, carried on principally by the Greek Christians and Jews, the former of which have 30 churches, and the latter as many synagogues; the Turks also have a few mosques. It is surrounded with walls flanked with towers, and defended on the land-side by a citadel, and near the harbour with three forts. It was taken from the Venetians by the Turks in 1431. The principal merchandise is silk. It is seated at the bottom of a gulf of the same name, partly on the top, and partly on the side of a hill, near the river Vardar. E. long. 23. 13. N. Lat. 40. 41.

SALSES, a very strong castle of France, in Roussillon, on the confines of Languedoc. It was taken from the Spaniards by the French in 1642; and is seated on a lake of the same name, among mountains, 10 miles north of Perpignan. E. Long. 3. 0. N. Lat. 43. 35.

SALSETTE, an island of the East Indies, adjacent to Bombay, from which it is in one place divided only by a narrow pass fordable at low water. It is about 26 miles long, and eight or nine broad. The soil is rich, and by a proper cultivation capable of producing any thing that will grow in tropical climates. It is everywhere well watered, and when in the possession of the Portuguese furnished such quantities of rice, that it was called the *Granary of Goa*. It abounds also in all kinds of provisions, and has great plenty of game, both of the four-footed and feathered kind. It has pretty high mountains; and there is a tradition that the whole was thrown up from the bottom of the sea: in confirmation of which it is said, that on the top of the highest hill there was found, some years ago, a stone anchor, such as was anciently used by the inhabitants of that country. Here we meet with the ruins of a place called *Canara*, where there are excavations of rocks, supposed to be contemporary with those of ELEPHANTA. They are much more numerous, but not comparable to the former either in extent or workmanship.

Salsette || Salt.

The island of Salsette lately formed part of the Portuguese dominions in India. It ought to have been ceded to the English along with Bombay, as part of the dower of Catharine of Lisbon, espoused to Charles II. The fulfilment of this article, however, being evaded, the island remained in possession of the Portuguese; and notwithstanding the little care they took of it, the revenue of it was valued at 60,000*l*. Such was the negligence of the Portuguese government, that they took no care to fortify it against the attacks of the Mahrattas, from whose dominions Salsette was only separated by a very narrow pass fordable at low water. Here they had only a miserable redoubt of no consequence, till, on the appearance of an approaching war with the Mahrattas, they began to build another, which indeed would have answered the purpose of protecting the island, provided the Mahrattas had allowed them to finish it. This, however, was not their intention. They allowed them indeed to go on quietly with their works till they saw them almost completed, when they came and took possession of them. The Mahrattas thus became dangerous neighbours to the English at Bombay, until it was ceded to the latter by the treaty concluded with these people in 1780. E. Long. 72. 15. N. Lat. 19. 0.

SALSOLA, GLASS-WORT, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 12th order, *Holoraceæ*. See BOTANY *Index*.

All the sorts of glass-wort are sometimes promiscuously used for making the sal kali, but it is the third sort which is esteemed best for this purpose. The manner of making it is as follows: Having dug a trench near the sea, they place laths across it, on which they lay the herb in heaps, and, having made a fire below, the liquor, which runs out of the herbs, drops to the bottom, which at length thickening, becomes sal kali, which is partly of a black, and partly of an ash-colour, very sharp and corrosive, and of a saltish taste. This, when thoroughly hardened, becomes like a stone; and in that state is transported to different countries, for making of glass.

SALT, one of the great divisions of natural bodies. The characteristic marks of salt have usually been reckoned its power of affecting the organs of taste, and of being soluble in water. But this will not distinguish salt from quicklime, which also affects the sense of taste, and dissolves in water; yet quicklime has been universally reckoned an earth, and not a salt. The only distinguishing property of salts, therefore, is their crystallization in water: but this does not belong to all salts; for the nitrous and marine acids, though allowed on all hands to be salts, are yet incapable of crystallization, at least

Salt. least by any method hitherto known. Several of the imperfect neutral salts also, such as combinations of the nitrous, muriatic, and vegetable acids, with some kinds of earths, crystallize with very great difficulty. However, by the addition of spirit of wine, or some other substances which absorb part of the water, keeping the liquor in a warm place, &c. all of them may be reduced to crystals of one kind or other. Salt, therefore, may be defined a substance affecting the organs of taste, soluble in water, and capable of crystallization, either by itself or in conjunction with some other body; and, universally, every salt capable of being reduced into a solid form, is also capable of crystallization *per se*. Thus the class of saline bodies will be sufficiently distinguished from all others; for quicklime, though soluble in water, cannot be crystallized without addition either of fixed air or some other acid; yet it is most commonly found in a solid state. The precious stones, basaltes, &c. though supposed to be formed by crystallization, are nevertheless distinguished from salts by their insipidity and insolubility in water.

But acids and alkalies, and combinations of both, when in a concrete form, are salts, and of the purest form. Hence we conclude, that the bodies, to which the name of *salts* more properly belongs, are the concretions of those substances; which are accordingly called *acid salts*, *alkaline salts*, and *neutral salts*. These last are combinations of acid and alkaline salts, in such proportion as to render the compounds neither sour nor alkaline to the taste. This proportionate combination is called *saturation:* thus common kitchen salt is a neutral salt, composed of muriatic acid and soda combined together to the point of saturation. The appellation of *neutral salts* is also extended to denote all those combinations of acids, and any other substance with which they can unite, so as to lose, wholly or in great measure, their acid properties.

But although this general definition of salts is commonly received, yet there are many writers, especially mineralogists, who confine the denomination of *salts* in the manner we first mentioned, viz. to those substances only which, besides the general properties of salts, have the power of crystallizing, that is, of arranging their particles so as to form regular shaped bodies, called *crystals*, when the water superfluous to their concrete existence has been evaporated.

Common Salt, or *Sea Salt*, the name of that salt extracted from the waters of the ocean, which is used in greater quantities for preserving provisions, &c.

It is a perfect neutral salt, composed of marine or muriatic acid, saturated with mineral alkali. It has a saline but agreeable flavour. It requires about four times its weight of cold water to be dissolved, and nearly the same quantity of boiling water, according to Macquer. But according to Kirwan, it only requires 2.5 its weight of water to be dissolved in the temperature of sixty degrees of Fahrenheit. This salt always contains some part formed with a calcareous base; and, in order to have it pure, it must be dissolved in distilled water; then a solution of mineral alkali is to be poured in it until no white precipitation appears; then by filtrating and evaporating the solution, a pure common salt is produced. Its figure is perfectly cubic, and those hollow pyramids, or *tremies* as the French call them, as well as the parallelopipeds formed sometimes in its crystallization, consist all of a quantity of small cubes, disposed in those forms. Its decrepitation on the fire, which has been reckoned by some as a characteristic of this salt, although the vitriolated tartar, nitrous lead, and other salts, have the same property, is owing chiefly to the water, and perhaps also to the air of its crystallization.

Its specific gravity is 2,120 according to Kirwan. The acid of tartar precipitates nothing from it. One hundred parts of common salt contain thirty-three of real acid, fifty of mineral alkali, and seventeen of water. It is commonly found in salt water, and salt springs, in the proportion of even thirty-six per cent. It is found also in coals, and in beds of gypsum. This salt is unalterable by fire, though it fuses, and becomes more opaque: nevertheless a violent fire, with the free access of air, causes it to evaporate in white flowers, which adhere to the neighbouring bodies. It is only decomposed, as Macquer affirms, by the sulphuric and nitric acids; and also by the boracic or sedative salt. But although nitre is decomposed very easily by arsenic, this neutral marine salt is nowise decomposed by the same. According to Monge, the fixed vegetable alkali, when caustic, decomposes all this marine salt. It preserves from corruption almost all sorts of animal food much better for use than any other salt, as it preserves them without destroying their taste and qualities; but when applied in too small a quantity, it then promotes putrefaction.

Of this most useful commodity there are ample stores on land as well as in the ocean. There are few countries which do not afford vast quantities of rock or fossil salt. Mines (A) of it have long been discovered and wrought in England, Spain, Italy, Germany, Hungary, Poland, and other countries of Europe. In several parts of the world, there are huge mountains which wholly consist of fossil salt. Of this kind are two mountains in Russia, nigh Astracan; several in the kingdoms of Tunis and Algiers, in Africa, and several also in Asia; and the whole island of Ormus in the Persian gulf almost entirely consists of fossil salt. The new world is likewise stored with treasures of this useful mineral, as well as with all other kinds of subterranean productions. Moreover, the sea affords such vast plenty of common salt, that all mankind might thence be supplied with quantities sufficient for their occasions. There are also innumerable springs, ponds, lakes, and rivers, impregnated with common salt, from which the inhabitants of many countries are plentifully supplied therewith. In some countries which are remote from the sea, and have little commerce, and which are not blessed with mines of salt or salt-waters, the necessities of the inhabitants have forced them to invent a method of extracting

(A) Amongst the salt mines of chief note are those of Northwich in Cheshire, Altemonte in Calabria, Halle in Tyrol, Cardona in Catalonia: also those stupendous mines at Wilieczka in Poland, to be noticed in the sequel of this article, and Soowar in Upper Hungary; of which see accounts in Phil. Trans. N° 61. and 413.

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ting their common salt from the ashes of vegetables. The muriatic salt of vegetables was described by Dr Grew under the title of *lixiviated marine salt*. Leeuwenhoek obtained cubical crystals of this salt from a lixivium of soda or kelp, and also from a solution of the lixivial salt of carduus benedictus; of which he hath given figures in a letter to the Royal Society, published in N° 175. of their Transactions. Dr Dagner, in *Act. Acad. N. C.* vol. v. obs. 150, takes notice of great quantities of it which he found mixed in potashes. And the ingenious Dr Fothergill extracted plenty of it from the ashes of fern: See *Medical Essays*, vol. v. article 13.

The muriatic salt which the excellent Mr Boyle extracted from sandiver, and supposed to be produced from the materials used in making glass, was doubtless separated from the kelp made use of in that process. Kunckel also informs us, that he took an alkaline salt; and after calcining it with a moderate fire, dissolved it in pure water, and placing the solution in a cool cellar, obtained from it many crystals of a neutral salt. He supposes that the alkaline salt was by the process converted into this neutral salt. But it is more reasonable to believe, that the alkaline salt which he applied was not pure, but mixed with the muriatic salt of vegetables, which by this process was only separated from it.

It is doubtless chiefly this muriatic salt which, in some of the inland parts of Asia, they extract from the ashes of duck-weed and of Adam's fig-tree, and use for their common salt.

That they are able in those countries to make common salt to profit from vegetables, ought not to be wondered at, since in Delhi and Agra, capitals of Indostan, salt is so scarce as usually to be sold for half-a-crown a pound. We may therefore give some credit to Marco Polo, when he informs us, that in the inner parts of the same quarter of the world, in the province of Caindu, lying west of Tibet, the natives used salt instead of money, it being first made up in cakes, and sealed with the stamp of their prince; and that they made great profit of this money by exchanging it with the neighbouring nations for gold and musk. We are also told by Ludolfus, in his *Historia Æthiopica*, that in the country of the Abyssines there are mountains of salt, the which when dug out is soft, but soon grows hard; and that this salt serves them instead of money to buy all things. The same is confirmed by Ramusio.

Mr Boyle discovered common salt in human blood and urine. "I have observed it (says Mr Brownrigg), not only in human urine, but also in that of dogs, horses, and black cattle. It may easily be discovered in these, and many other liquids impregnated with it, by certain very regular and beautiful starry figures which appear in their surfaces after congelation. These figures I first observed in the great frost in the year 1739. The dung of such animals as feed upon grass or grain, doth also contain plenty of common salt."

Naturalists, observing the great variety of forms under which this salt appears, have thought fit to rank the several kinds of it under certain general classes; distinguishing it, most usually, into rock or fossil salt, sea-salt, and brine or fountain salt. To which classes, others might be added, of those muriatic salts which are found in vegetable and animal substances. These several kinds of common salt often differ from each other in their outward form and appearance, or in such accidental properties as they derive from the heterogeneous substances with which they are mixed. But when perfectly pure, they have all the same qualities; so that chemists, by the exactest inquiries, have not been able to discover any essential difference between them; for which reason we shall distinguish common salt after a different manner, into the three following kinds, viz. into rock or native salt, bay salt, and white salt.

By *rock salt*, or *native salt*, is understood all salt dug out of the earth, which hath not undergone any artificial preparation. Under the title of *bay salt* may be ranked all kinds of common salt extracted from the water wherein it is dissolved, by means of the sun's heat, and the operation of the air; whether the water from which it is extracted be sea water, or natural brine drawn from wells and springs, or salt water stagnating in ponds and lakes. Under the title of *white salt*, or *boiled salt*, may be included all kinds of common salt extracted by coction from the water wherein it is dissolved; whether this water be sea water, or the salt water of wells, fountains, lakes or rivers; or water of any sort impregnated with rock-salt, or other kinds of common salt.

The first of these kinds of salt is in several countries found so pure, that it serves for most domestic uses, without any previous preparation (triture excepted); for of all natural salts rock-salt is the most abundantly furnished by nature in various parts of the world, being found in large masses, occupying great tracts of land. It is generally found in strata under the surface of the earth, as in Hungary, Muscovy, Siberia, Poland, Calabria, Egypt, Ethiopia, and the East Indies. "In England (says Magellan), the salt mines at Northwich are in a high ground, and contain it in layers or strata of various colours, of which the yellow and brown are the most plentiful, as I have observed on the spot, which I visited in June 1782, in company with my worthy and learned friend Mr Volta, professor of natural philosophy in the university of Pavia, and well known by his great abilities, and many discoveries in that branch of knowledge. The mine into which we descended was excavated in the form of a vast dome or vault under ground, supported by various columns of the salt, that were purposely left to support the incumbent weight. And the workmen having lighted a number of candles all round its circumference, it furnished us with the most agreeable and surprising sight, whilst we were descending in the large tub, which serves to bring up the lumps that are broken from the mine," &c.

Wraxall gives the following description of the famous salt mines near Cracow in Poland.

"After being let down (says he) by a rope to the depth of 230 feet, our conductors led us through galleries, which, for loftiness and breadth, seemed rather to resemble the avenues to some subterraneous palace, than passages cut in a mine. They were perfectly dry in every part, and terminated in two chapels composed entirely of salt, hewn out of the solid mass. The images which adorn the altars, as well as the pillars and ornaments, were all of the same transparent materials; the points and spars of which reflecting the rays of light from the lamps which the guides held in their hands, produced an effect equally novel and beautiful. Descending lower

Memoirs of the Courts of Berlin, Dresden, Warsaw, and Vienna.

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er into the earth by means of ladders, I found myself in an immense hall or cavern of salt, many hundred feet in height, length, and dimensions, the floor and sides of which were cut with exact regularity. A thousand persons might dine in it without inconvenience, and the eye in vain attempted to trace or define its limits. No thing could be more sublime than this vast subterranean apartment, illuminated by flambeaux, which faintly discover its prodigious magnitude, and leave the imagination at liberty to enlarge it indefinitely. After remaining about two hours and a half under ground, I was drawn up again in three minutes with the greatest facility."

See also an account of the same mines by Mr Bernard, *Journal de Physique*, vol. xvi. for 1780, in which the miraculous tales concerning those subterranean habitations, villages, and towns, are reduced to their proper magnitude and estimate.

The English fossil salt is unfit for the uses of the kitchen, until by solution and coction it is freed from several impurities, and reduced into white salt. The British white salt also is not so proper as several kinds of bay salt for curing fish and such flesh-meats as are intended for sea provisions, or for exportation into hot countries. So that for these purposes we are obliged, either wholly or in part, to use bay salt, which we purchase in France, Spain, and other foreign countries.

However, it does not appear that there is any other thing requisite in the formation of bay salt than to evaporate the sea water with an exceedingly gentle heat; and it is even very probable, that our common sea-salt by a second solution and crystallization might attain the requisite degree of purity. Without entering into any particular detail of the processes used for the preparation of bay-salt in different parts of the world, we shall content ourselves with giving a brief account of the best methods of preparing common salt.

Brownrigg on the Art of Preparing Salt.

At some convenient place near the sea-shore is erected the saltern. This is a long, low building, consisting of two parts; one of which is called the *fore-house*, and the other the *pan-house*, or *boiling-house*. The fore-house serves to receive the fuel, and cover the workmen; and in the boiling-house are placed the furnace, and pan in which the salt is made. Sometimes they have two pans, one at each end of the saltern; and the part appropriated for the fuel and workmen is in the middle.

The furnace opens into the fore-house by two mouths, beneath each of which is a mouth to the ash-pits. To the mouths of the furnace, doors are fitted; and over them a wall is carried up to the roof, which divides the fore-house from the boiling-house, and prevents the dust of the coal and the ashes and smoke of the furnace from falling into the salt pan. The fore-house communicates with the boiling-house by a door placed in the wall which divides them.

The body of the furnace consists of two chambers, divided from each other by a brick partition called the *midfeather;* which from a broad base terminates in a narrow edge nigh the top of the furnace; and by means of short pillars of cast iron erected upon it, supports the bottom of the salt pan; it also fills up a considerable part of the furnace, which otherwise would be too large, and would consume more coals than, by the help of this contrivance, are required. To each chamber of the furnace is fitted a grate, through which the ashes fall into the ash-pits. The grates are made of long bars of iron, supported underneath by strong cross bars of the same metal. They are not continued to the farthest part of the furnace, it being unnecessary to throw in the fuel so far: for the flame is driven from the fire on the grate to the farthest part of the furnace; and from thence passes, together with the smoke, through two flues into the chimney; and thus the bottom of the salt pan is everywhere equally heated.

The salt pans are made of an oblong form, flat at the bottom, with the sides erected at right angles; the length of some of these pans is 15 feet, in breadth 12 feet, and the depth 16 inches; but at different works they are of different dimensions. They are commonly made of plates of iron, joined together with nails, and the joints are filled with a strong cement. Within the pan five or six strong beams of iron are fixed to its opposite sides, at equal distances, parallel to each other and to the bottom of the pan, from which they are distant about eight inches. From these beams hang down strong iron hooks, which are linked to other hooks or clasps of iron firmly nailed to the bottom of the pan; and thus the bottom of the pan is supported, and prevented from bending down or changing its figure. The plates most commonly used are of malleable iron, about four feet and a half long, a foot broad, and the third of an inch in thickness. The Scots prefer smaller plates, 14 or 15 inches square. Several make the sides of the pan, where they are not exposed to the fire, of lead; those parts, when made of iron, being found to consume fast in rust from the steam of the pan. Some have used plates of cast iron, five or six feet square, and an inch in thickness; but they are very subject to break when unequally heated, and shaken (as they frequently are) by the violent boiling of the liquor. The cement most commonly used to fill the joints is plaster made of lime.

The pan, thus formed, is placed over the furnace, being supported at the four corners by brick work; but along the middle, and at the sides and ends, by round pillars of cast iron called *taplins*, which are placed at three feet distance from each other, being about eight inches high, and at the top, where smallest, four inches in diameter. By means of these pillars the heat of the fire penetrates equally to all parts of the bottom of the pan, its four corners only excepted. Care is also taken to prevent the smoke of the furnace from passing into the boiling-house, by bricks and strong cement, which are closely applied to every part of the salt pan. In some places, as at Blyth in Northumberland, besides the common salt pans here described, they have a preparing pan placed between two salt pans, in the middle part of the building, which in other works is the fore-house. The sea-water being received into this preparing pan, is there heated and in part evaporated by the flame and heat conveyed under it through flues from the two furnaces of the salt pans. And the hot water, as occasion requires, is conveyed through troughs from the preparing pan into the salt pans. Various other contrivances have been invented to lessen the expense of fuel, and several patents have been obtained for that purpose; but the salt-boilers have found their old methods the most convenient.

Between the sides of the pan and walls of the boiling-

Salt. ing-house, there runs a walk five or six feet broad, where the workmen stand when they draw the salt, or have any other business in the boiling-house. The same walk is continued at the end of the pan, next to the chimney; but the pan is placed close to the wall at the end adjoining to the fore-house.

The roof of the boiling-house is covered with boards fastened on with nails of wood, iron nails quickly mouldering into rust. In the roof are several openings, to convey off the watery vapours; and on each side of it a window or two, which the workmen open when they look into the pan whilst it is boiling.

Not far distant from the saltern, on the sea-shore, between full sea and low-water marks, they also make a little pond in the rocks, or with stones on the sand, which they call their *sump*. From this pond they lay a pipe, through which, when the tide is in, the sea-water runs into a well adjoining to the saltern; and from this well they pump it into troughs, by which it is conveyed into their ship or cistern, where it is stored up until they have occasion to use it.

The cistern is built close to the saltern, and may be placed most conveniently between the two boiling-houses, on the back side of the fore-house; it is made either of wood, or brick and clay; it sometimes wants a cover, but ought to be covered with a shed, that the salt water contained therein may not be weakened by rains, nor mixed with soot and other impurities. It should be placed so high, that the water may conveniently run out of it, through a trough, into the salt pans.

Besides the buildings already mentioned, several others are required; as storehouses for the salt, cisterns for the bittern, an office for his majesty's salt-officers, and a dwelling-house for the salt-boilers.

All things being thus prepared, and the sea-water having stood in the cistern till the mud and sand are settled to the bottom, it is drawn off into the salt-pan. And at the four corners of the salt-pan, where the flame does not touch its bottom, are placed four small lead pans, called *scratch pans*, which, for a salt pan of the size above mentioned, are usually about a foot and a half long, a foot broad, and three inches deep; and have a bow or circular handle of iron, by which they may be drawn out with a hook, when the liquor in the pan is boiling.

The salt pan being filled with sea-water, a strong fire of pit-coal is lighted in the furnace; and then, for a pan which contains about 400 gallons, the salt-boiler takes the whites of three eggs, and incorporates them well with two or three gallons of sea-water, which he pours into the salt pan while the water contained therein is only lukewarm; and immediately stirs it about with a rake, that the whites of eggs may everywhere be equally mixed with the salt water.

Instead of whites of eggs, at many salterns, as at most of those nigh Newcastle, they use blood from the butchers, either of sheep or black cattle, to clarify the sea-water: And at many of the Scots salterns they do not give themselves the trouble of clarifying it.

As the water grows hot, the whites of eggs separate from it a black frothy scum, which rises to the surface of the water, and covers it all over. As soon as the pan begins to boil, this scum is all risen, and it is then time to skim it off.

The most convenient instruments for this purpose are skimmers of thin ash boards, six or eight inches broad, and so long that they may reach above half way over the salt pan. These skimmers have handles fitted to them; and the salt-boiler and his assistant, each holding one of them on the opposite sides of the pan, apply them so to each other that they overlap in the middle, and beginning at one end of the pan, carry them gently forward together, along the surface of the boiling liquor, to the other end; and thus, without breaking the scum, collect it all to one end of the pan, from whence they easily take it out. Salt.

After the water is skimmed, it appears perfectly clear and transparent; and they continue boiling it briskly, till so much of the fresh or aqueous part is evaporated, that what remains in the pan is a strong brine almost fully saturated with salt, so that small saline crystals begin to form on its surface; which operation, in a pan filled 15 inches deep with water, is usually performed in five hours.

The pan is then filled up a second time with clear sea-water drawn from the cistern; and about the time when it is half filled, the scratch-pans are taken out, and being emptied of the scratch found in them, are again placed in the corners of the salt pan. The scratch taken out of these pans is a fine white calcareous earth found in the form of powder, which separates from the sea-water during its coction, before the salt begins to form into grains. This subtile powder is violently agitated by the boiling liquor, until it is driven to the corners of the pan, where the motion of the liquor being more gentle, it subsides into the scratch-pans placed there to receive it, and in them it remains undisturbed, and thus the greatest part of it is separated from the brine.

After the pan hath again been filled up with sea-water, three whites of eggs are mixed with the liquor, by which it is clarified a second time, in the manner before described; and it is afterwards boiled down to a strong brine as at first; which second boiling may take up about four hours.

The pan is then filled up a third time with clear sea-water; and after that, a fourth time; the liquor being each time clarified and boiled down to a strong brine, as before related; and the scratch-pans being taken out and emptied every time that the pan is filled up.

Then, at the fourth boiling, as soon as the crystals begin to form on the surface of the brine, then slacken the fire, and only suffer the brine to simmer, or boil very gently. In this heat they constantly endeavour to keep it all the time that the salt corns or granulates, which may be nine or ten hours. The salt is said to granulate, when its minute crystals cohere together into little masses or grains, which sink down in the brine, and lie at the bottom of the salt pan.

When most of the liquor is evaporated, and the salt thus lies in the pan almost dry on its surface, it is then time to draw it out. This part of the process is performed by raking the salt to one side of the pan into a long heap, where it drains a while from the brine, and is then filled out into barrows or other proper vessels, and carried into the store-house, and delivered into the custody of his majesty's officers. And in this manner the whole process is performed in 24 hours; the salt being usually drawn every morning.

Salt.

In the store-house the salt is put hot into drabs, which are partitions like stalls for horses, lined on three sides and at the bottom with boards, and having a sliding-board on the fore-side to put in or draw out as occasion requires. The bottoms are made shelving, being highest at the back-side, and gradually inclining forwards; by which means the saline liquor, which remains mixed with the salt, easily drains from it; and the salt, in three or four days, becomes sufficiently dry; and is then taken out of the drabs, and laid up in large heaps, where it is ready for sale.

The saline liquor which drains from the salt is not a pure brine of common salt, but hath a sharp and bitter taste, and is therefore called *bittern*: this liquor, at some works, they save for particular uses, at others throw away. A considerable quantity of this bittern is left at the bottom of the pan after the process is finished; which, as it contains much salt, they suffer to remain in the pan, when it is filled up with sea-water. But at each process this liquor becomes more sharp and bitter, and also increases in quantity: so that, after the third or fourth process is finished, they are obliged to take it out of the pan; otherwise it mixes in such quantities with the salt, as to give it a bitter taste, and disposes it to grow soft and run in the open air, and renders it unfit for domestic uses.

After each process there also adheres to the bottom and sides of the pan, a white stony crust, of the same calcareous substance with that before collected from the boiling liquor. This the operators call *stone-scratch*, distinguishing the other found in the lead-pans by the name of *powder-scratch*. Once in eight or ten days they separate the stone-scratch from their pans with iron picks, and in several places find it a quarter of an inch in thickness. If this stony crust is suffered to adhere to the pan much longer, it grows so thick that the pan is burnt by the fire, and quickly wears away.

In M. de Pagés's Travels round the World, we find the following important fact. "I had been anxious (says that author) to ascertain by comparison, whether sea-water contains salt in greater quantity under the torrid than under the other zones; and my experiments on this subject served to show, contrary to what I expected, that sea-water is impregnated with salt in less quantity within than without the tropics.' These experiments were made on a hundred pounds of sea-water, taken at the depth of ten fathoms, and weighed in water-scales. M. de Pagés has given a table of these experiments, from which it appears that 100 lb. of sea-water in 46° 12″ S. lat. gave $4\frac{1}{2}$ lb. of salt, and in 1° 16″ only $3\frac{1}{2}$ lb.; and that in 74 N. lat. it gave $4\frac{3}{4}$ lb. and in 4° 22′ only $3\frac{1}{2}$ lb. these being the highest and lowest latitudes in which the experiments were made, and also the greatest and least quantities of salt.

Salt || Salts.

Duty on Salt, is a distinct branch of his majesty's extraordinary revenue, and consists in an excise of 3s. 4d. per bushel imposed upon all salt, by several statutes of King William and other subsequent reigns. This is not generally called an excise, because under the management of different commissioners: but the commissioners of the salt-duties have, by statute 1 Ann. c. 21. the same powers, and must observe the same regulations, as those of other excises. This tax had usually been only temporary; but by statute 26 Geo II, c. 3. was made perpetual.

SALTASH, a sea-port town of Cornwall in England, situated on the river Tamar, having sufficient depth of water for large ships. Saltash is a borough town, sends two members to parliament, and contained 1478 inhabitants in 1811. It is distant 5 miles N. W. from Plymouth, 220 miles W. S. W. from London, and is in W. Long. 4. 6. N. Lat. 50. 24.

SALTCOATS, a sea-port town of Ayrshire in Scotland, and on the frith of Clyde, at the end of the 17th century consisted of only four houses, but contained 1684 inhabitants in 1811. It is now a great resort of strangers in summer as a watering-place, has a considerable trade in coal and salt, with a rope-yard, the manufacture of sail-cloth and ship-building. It is 30 miles from Glasgow, and 18 from Ayr, and in W. Long. 4. 37. N. Lat. 55. 41.

SALTS, effects of, in producing great degrees of cold. In the account of the remarkable effects of frigorific mixtures, in which saline bodies act so important a part, given in our article Chemistry, some errors had crept in. These errors, through the liberal attention of Mr Walker of Oxford, whose researches on this subject have been carried farther than any other chemist, we are enabled to correct, by laying before our readers the following tables, most obligingly communicated to us by that gentleman.

TABLES,

TABLES, exhibiting a collective View of all the Frigorific Mixtures contained in Mr Walker's Publication, 1808.

TABLE I.—This Table consists of Frigorific Mixtures, having the power of *generating* or *creating* cold, *without the aid of ice*, sufficient for all useful and philosophical purposes, in any part of the world, at any season.

Frigorific Mixtures, *without Ice.*

Mixtures.		Thermometer sinks.	Deg. of cold produced.
Muriate of ammonia Nitrate of potash Water	5 parts 5 16	From +50° to +10°.	40
Muriate of ammonia Nitrate of potash Sulphate of soda Water	5 parts 5 8 16	From +50° to +4°.	46
Nitrate of ammonia Water	1 part 1	From +50° to +4°.	46
Nitrate of ammonia Carbonate of soda Water	1 part 1 1	From +50° to —7°.	57
Sulphate of soda Diluted nitric acid	3 parts 2	From +50° to —3°.	53
Sulphate of soda Muriate of ammonia Nitrate of potash Diluted nitric acid	6 parts 4 2 4	From +50° to —10°.	60
Sulphate of soda Nitrate of ammonia Diluted nitric acid	6 parts 5 4	From +50° to —14°.	64
Phosphate of soda Diluted nitric acid	9 parts 4	From +50° to —12°.	62
Phosphate of soda Nitrate of ammonia Diluted nitric acid	9 parts 6 4	From +50° to —21°.	71
Sulphate of soda Muriatic acid	8 parts 5	From +50° to 0°.	50
Sulphate of soda Diluted sulphuric acid	5 parts 4	From +50° to +3°.	47

N. B. If the materials are mixed at a *warmer* temperature, than that expressed in the table, the effect will be proportionably *greater ;* thus, if the most powerful of these mixtures be made, when the air is +85°, it will sink the thermometer to +2°.

TABLE II.

TABLE II.—This Table consists of Frigorific Mixtures, composed of *ice*, with chemical salts and acids.

Frigorific Mixtures, *with ice*.

Mixtures.	Thermometer sinks.		Deg. of cold produced.
Snow, or pounded ice 2 parts Muriate of soda 1	*From any Temperature*	to —50°	*
Snow, or pounded ice 5 parts Muriate of soda 2 Muriate of ammonia 1		to —12°	*
Snow, or pounded ice 24 parts Muriate of soda 10 Muriate of ammonia 5 Nitrate of potash 5		to —18°	*
Snow, or pounded ice 12 parts Muriate of soda 5 Nitrate of ammonia 5		to —25°	*
Snow - - 3 parts Diluted sulphuric acid 2	From +32° to —23°		55
Snow - - 8 parts Muriatic acid - 5	From +32° to —27°		59
Snow - - 7 parts Diluted nitric acid 4	From +32° to —30°		62
Snow - - 4 parts Muriate of lime 5	From +32° to —40°		72
Snow - - 2 parts Chryst. muriate of lime 3	From +32° to —50°		82
Snow - - 3 parts Potash - - 4	From +32° to —51°		83

N. B. The reason for the *omissions* in the last column of this table, is, the thermometer sinking in these mixtures to the degree mentioned in the preceding column, *and never lower*, whatever may be the temperature of the materials at mixing.

TABLE III.

TABLE III.—This Table consists of Frigorific Mixtures selected from the foregoing tables, and *combined*, so as to *increase* or *extend* cold to the extremest degrees.

Combinations of Frigorific Mixtures.

Mixtures.	Thermometer sinks.	Deg. of cold produced.
Phosphate of soda 5 parts Nitrate of ammonia 3 Diluted nitric acid 4	From 0° to —34°	34
Phosphate of soda 3 parts Nitrate of ammonia 2 Diluted mixed acids 4	From —34° to —50°	16
Snow 3 parts Diluted nitric acid 2	From 0° to —46°	46
Snow 8 parts Diluted sulphuric acid 3 Diluted nitric acid 3	From —10° to —56°	46
Snow 1 part Diluted sulphuric acid 1	From —20° to —60°	40
Snow 3 parts Muriate of lime 4	From +20° to —48°	68
Snow 3 parts Muriate of lime 4	From +10° to —54°	64
Snow 2 parts Muriate of lime 3	From —15° to —68°	53
Snow 1 part Chryst. muriate of lime 2	From 0° to —66°	66
Snow 1 part Chryst. muriate of lime 3 parts	From —40° to —73°	33
Snow 8 parts Diluted sulphuric acid 10	From —68° to —91°	23

N. B. The materials in the first column are to be cooled, previously to mixing, to the temperature required by mixtures taken from either of the preceding tables.

Triple Salts, a kind of salts formed by the union of three ingredients; the common neutrals being composed only of two, as for instance, common alum, which is composed of sulphuric acid, alumina, and potash.

Salt-Mines. See Salt.

Rock-Salt. See Salt.

Salt-Water, or *Sea-water*, *Distillation of.* See *Sea-Water.*

Neutral-Salts. See Chemistry, passim.

Salt Springs. Of these there are great numbers in different parts of the world, which undoubtedly have their origin from some of the large collections of fossil salt mentioned under the article *Common Salt.* See that article, and likewise Spring.

SALTIER, one of the honourable ordinaries—See Heraldry.

This, says G. Leigh, in his Accedence of Arms, p. 70, was anciently made of the height of a man, and driven full of pins, the use of which was to scale walls, &c. Upton says it was an instrument to catch wild beasts, whence he derives this word from *saltus*, i. e. "a forest." The French call this ordinary *sautoir*, from *sauter*, "to leap;" because it may have been used by soldiers to leap over walls of towns, which in former times were but low; but some modern authors think it is borne in imitation of St Andrew's cross.

SALTING MEAT FOR THE USE OF THE NAVY. The following is the method recommended by the late Admiral

Salting, Saltpetre.

Admiral Sir Charles Knowles. When the ox is killed, let it be skinned and cut up into pieces fit for use as quick as possible, and salted while the meat is hot. For which purpose we must have a sufficient quantity of saltpetre and bay salt pounded together and made hot in an oven, of each equal parts; with this sprinkle the meat at the rate of about two ounces to the pound; then lay the pieces on shelving boards to drain for 24 hours; which done, turn them and repeat the same operation, and let them lie for 24 hours longer. By this time the salt will be all melted, and have penetrated the meat, and the pieces be drained off; each piece must then be wiped dry with clean coarse cloths. A sufficient quantity of common salt must then be made hot likewise in an oven, and mixed when taken out with about one third of brown sugar; then the casks being ready, rub each piece well with this mixture, and pack them well down, allowing about half a pound of the salt and sugar to each pound of meat, and it will keep good several years.

It is best to proportion the casks to the quantity used at one time, as the less it is exposed to the air the better. The same process does for pork, only a larger quantity of salt and less sugar must be used; but the preservation of both depends equally upon the meat being hot when first salted.

One pound of beef requires two ounces of saltpetre and two ounces of bay-salt, because it is to be sprinkled twice; an ounce of each to a pound of beef both times. The saltpetre requisite for 100 lb. of beef is 12½ lb. which at 12d. per lb. is 12s. 6d.; and the same quantity of bay-salt (for 100 lb. of beef), at three half-pence per lb. is 1s. 6d.; of brown sugar and common salt mixed together half a pound is required, the former in the proportion of one-third, the latter of two-thirds, to a pound of beef. The brown sugar at 8d. per pound. A hundred pounds of beef will take 250 ounces of it, which costs 10s. 5d. The quantity of common salt requisite for 100 lb. of beef is 533 ounces, which at 2d. per lb. amounts to 5s. 6d. The expense therefore will stand thus.

Saltpetre, 12½ lb. for 100 lb. of beef, is	L.0	12	6
Bay-salt, 12½ lb. for do. is - -	0	1	6
Brown sugar, 250 oz. for do. is - -	0	10	5
Beef, 100 lb. at 6d. per pound, is -	2	10	0
Three casks for it at 1s. 6d. each, -	0	4	6
Labour, and heating the oven twice, -	0	4	0
Common salt, 533 oz. for do. is -	0	5	6
	L.4	8	5

These articles are taken high; and if beef costs 6d. per pound, meat cured thus will cost less than 1s. per pound; and therefore comes much cheaper than livestock in long sea voyages.

SALTPETRE, or NITRE, (*nitrate of potash*), a compound of nitric acid and potash. See POTASH, CHEMISTRY *Index*. The importance of this salt in various manufactures renders every information relative to its production valuable. The following method has been long practised by the farmers of Appenzell in Switzerland. In so hilly a country, most houses and stables are built on slopes, one side of the edifice resting on the hill, and the other being supported by two strong posts, elevated two or three feet above the ground; so that the air has a free current under the building. Immediately under the stable a pit is dug, usually occupying both in breadth and length the whole space of ground covered by the building; and instead of the clayey earth which is dug out, the pit is filled up with sandy soil. This is the whole process, and all the rest is done by nature. The animal water, which is continually oozing through the planks of the floor, having drenched the earth contained in the pit for the space of two or three years, the latter is emptied, and the saltpetre is refined and prepared in the usual manner.

Saltpetre.

That manner, however, is not the best; and the French chemists, during the incessant wars occasioned by the revolution, have, for the sake of supplying their armies with gunpowder, turned their attention to the best method of refining saltpetre. The following are directions given for this purpose by Chaptal, Champy, and Bonjour.

The crude saltpetre is to be beaten small with mallets, in order that the water may more easily attack every part of the mass. The saltpetre is then to be put into tubs, five or six hundred pounds in each tub. Twenty per cent. of water is to be poured into each tub, and the mixture well stirred. It must be left to macerate or digest until the specific gravity of the fluid ceases to augment. Six or seven hours are sufficient for this first operation, and the water acquires the density of between 25 and 35 degrees. (Sp. gr. 1.21, and 1.306, ascertained by Baumé's hydrometer.)

The first water must then be poured off, and a second portion of water must be poured on the same saltpetre amounting to 10 per cent.; after which the mixture must be stirred up, suffered to macerate for one hour, and the fluid drawn or poured off.

Five per cent. of water must then be poured on the saltpetre; and after stirring the whole, the fluid must be immediately drawn off.

When the water is drained from the saltpetre, the salt must be thrown into a boiler containing 50 per cent. of boiling water. When the solution is made, it will mark between 66 and 68 degrees of the hydrometer. (Sp. gr. 1.848, and 1.898).

The solution is to be poured into a proper vessel, where it deposits, by cooling, about two thirds of the saltpetre originally taken. The precipitation begins in about half an hour, and terminates in between four and six hours. But as it is of importance to obtain the saltpetre in small needles, because in this form it is more easily dried, it is necessary to agitate the fluid during the whole time of the crystallization. A slight motion is communicated to this liquid mass by a kind of rake; in consequence of which the crystals are deposited in very slender needles.

In proportion as the crystals fall down, they are scraped to the borders of the vessel, whence they are taken with a skimmer, and thrown to drain in baskets placed on tressels, in such a manner that the water which passes through may either fall into the crystallizing vessel, or be received in basins underneath.

The saltpetre is afterwards put into wooden vessels in the form of a mill-hopper or inverted pyramid with a double bottom. The upper bottom is placed two inches above the lower on wooden ledges, and has many small perforations through which water may pass to the

Saltpetre.

the lower bottom, which likewise affords a passage by one single aperture. A reservoir is placed beneath. The crystallized saltpetre is washed in these vessels with 5 per cent. of water; which water is afterwards employed in the solution of saltpetre in subsequent operations.

The saltpetre, after sufficient draining, and being dried by exposure to the air upon tables for several hours, may then be employed in the manufacture of gunpowder.

But when it is required to use the saltpetre in the speedy and immediate manufacture of gunpowder, it must be dried much more strongly. This may be effected in a stove, or more simply by heating it in a flat metallic vessel. For this purpose the saltpetre is to be put into the vessel to the depth of five or six inches, and heated to 40 or 50 degrees of the thermometer (or about 135° of Fahrenheit). The saltpetre is to be stirred for two or three hours, and dried so much that, when strongly pressed in the hand, it shall acquire no consistence, nor adhere together, but resemble a very fine dry sand. This degree of dryness is not required when the powder is made by pounding.

From these circumstances, we find that two saline liquids remain after the operation; (1) the water from the washing; and (2) that from the crystallizing vessels.

We have already remarked, that the washing of the saltpetre is performed in three successive operations, in which, upon the whole, the quantity of fluid made use of amounts to 35 per cent. of the weight of the crude saltpetre. These washings are established on the principle, that cold water dissolves the muriates of soda, and the earthy nitrates and muriates, together with the colouring principle, but scarcely attacks the nitrate of potash.

The water of these three washings therefore contains the muriate of soda, the earthy salts, the colouring principle, and a small quantity of nitrate of potash; the amount of which is in proportion to that of the muriate of soda, which determines its solution. The water of the crystallizing vessels contains a portion of the muriates of soda, and of the earthy salts which escaped the operation of washing, and a quantity of nitrate of potash, which is more considerable than that of the former solution. The waters made use of at the end of the operation, to whiten and wash the crystals deposited in the pyramidal vessel, contain nothing but a small quantity of nitrate of potash. These waters are therefore very different in their nature. The water of the washings is really a mother water. It must be collected in vessels, and treated with potash by the known processes. It must be evaporated to 66 degrees (or 1,848 sp. gr.), taking out the muriate of soda as it falls. This solution is to be saturated with 2 or 3 per cent. of potash, then suffered to settle, decanted, and poured into crystallizing vessels, where 20 per cent. of water is to be added to keep the whole of the muriate of soda suspended.

The waters which are thus obtained by treatment of the mother water may be mixed with the water of the first crystallization. From these the marine salt may be separated by simple evaporation; and the nitrate of potash, which they hold in solution, may be afterwards obtained by cooling. The small quantity of water made use of to wash and whiten the refined saltpetre, contains nothing but the nitrate of potash: it may therefore be used in the solution of the saltpetre when taken from the tubs.

Saltpetre. Saltsburg.

From this description it follows, that a manufactory for the speedy refining of saltpetre ought to be provided with mallets or rammers for pounding the saltpetre; tubs for washing; a boiler for solution; a crystallizing vessel of copper or lead, in which the saltpetre is to be obtained by cooling; baskets for draining the saltpetre; scales and weights for weighing; hydrometers and thermometers, to ascertain densities and temperatures; rakes to agitate the liquor in the crystallizing vessel; skimmers to take out the crystals, and convey them to the baskets; syphons or hand-pumps to empty the boilers. The number and dimensions of these several articles must vary according to the quantity of saltpetre intended to be refined.

SALTSBURG, an archbishopric of Germany, in the circle of Bavaria, bounded on the east by Stiria and the Upper Austria, on the west by the county of Tyrol, on the north by the dutchy of Bavaria, and on the south by the dutchy of Carinthia and the bishopric of Brixen. It is said to be about 100 miles from east to west, and upwards of 60 from north to south. With respect to the soil, it is very mountainous, yielding, however, excellent pasturage, and, in consequence of that, abounding in cattle, and horses remarkable for their mettle and hardiness. This country is particularly noted for the great quantities of salt it produces, and its strong passes and castles. Here are also considerable mines of silver, copper, lead, iron, and lapis calaminaris, with quarries of marble, and a natural hot-bath. The principal rivers are the Salza, the Inn, the Ens, and Muer; which, as well as the lakes and other streams, are well stored with fish. The peasants here are all allowed the use of arms, and trained to military duty. There are no nobles in the country, and most of the lands belong to the clergy. The states consist of the prelates, the cities, and towns. Notwithstanding this country is under the power of a Popish ecclesiastic, and the violent, arbitrary, and oppressive manner in which the Protestants have always been treated, great numbers of them still remained in it till the year 1732, when no less than 30,000 of them withdrew from it, dispersing themselves in the several Protestant states of Europe, and some of them were even sent from Great Britain to the American colonies. Besides brass and steel wares, and all sorts of arms and artillery, there are manufactures of coarse cloth and linen here. The archbishop had many and great prerogatives: he was a prince of the empire, and perpetual legate of the holy see in Germany, of which he is also primate. He had the first voice in the diet of this circle, and next to the electors in that of the empire, in the college of princes, in which he and the archduke of Austria presided by turns. But his rights as a sovereign prince were lost when the territory was united to Austria in 1805. He had also the nomination to several bishoprics; and the canonicates that fall vacant in the months in which the popes, by virtue of the concordat, are allowed to nominate, are all in his gift. His suffragans are the bishops of Freysingen, Ratisbon, Brixen, Gurk, Chiemsee, Seckau, and Lavant; and of these, the four last are nominated, and even confirmed by him and not by the pope. His revenue was said

Saltsburg.

said to amount to near 200,000*l.* a year, a great part of it arising from the salt-works. He was able to raise 25,000 men; but kept in constant pay, besides his guards, only one regiment, consisting of 1000 men. At his accession to the see, the archbishop paid 100,000 crowns to Rome for the pall. There is an order of knighthood here, instituted in 1711, in honour of St Rupert, who was the first bishop of Saltsburg, about the beginning of the 8th century. This territory, which formerly was an independent principality, was united to Austria at the peace with France in 1805. At the peace of Presburg in 1809, she was compelled to cede Saltsburg to Bavaria; but she regained it in 1815, and it now forms an integrant part of the Austrian monarchy.

SALTSBURG, the capital of a German archbishopric of the same name, and which takes its own from the river Salza, on which it stands, and over which it has a bridge. It is a very handsome place, well fortified, and the residence of the archbishop. The houses are high, and all built of stone: the roofs are in the Italian taste, and you may walk upon them. The castle here is very strong, and as strongly garrisoned, and well provided with provisions and warlike stores. The archbishop's palace is magnificent; and, in the area before it, is a fountain, esteemed the largest and grandest in Germany. The stables are very lofty; and the number of the horses usually kept by the archbishop is said to be upwards of 200. The city, of which one part stands on a steep rock, is well built, but the streets are narrow and badly paved. Besides the above mentioned, there are two other stately palaces belonging to the archbishop, one of which is called the *Nuebau*, and the other *Mirabella*. The latter of these has a very beautiful garden; and the number of trees in the orangery is so great, that Mr Keysler tells us, 20,000 oranges have been gathered from them in one year. The river Salza runs close by the walls of this garden. There are a great many other fine structures in the city, public and private, such as palaces, monasteries, hospitals, and churches. In the cathedral dedicated to St Rupert (the apostle of Bavaria, and a Scotchman by birth), all the altars are of marble of different kinds, and one of the organs has above 3200 pipes. The whole structure is extremely handsome. It is built of freestone in imitation of St Peter's at Rome. The portico is of marble, and the whole is covered with copper. Before the portico there is a large quadrangular place, with arches and galleries, in which is the prince's residence; and in the middle of this place there is a statue of the Virgin in bronze; it is a fine piece of art, but of an unnatural size. There are large areas encompassed with handsome buildings on both sides of the church. In the middle of that which is to the left, there is a most magnificent fountain of marble, and some valuable figures of gigantic size. There is likewise a fountain in that to the right, but it is not to be compared with the former one, and the Neptune of it makes but a very pitiful figure. This town contains many more excellent buildings and statues, which remind one that the borders of Italy are not far distant. The winter and summer riding schools here are noble structures. The university was founded in 1629, and committed to the care of the Benedictines. Besides it, there are two colleges, in which the young noblemen are educated. E. Long. 13. 0. Lat. 47. 45.

Saltsburg || Salutation.

SALVADORA, a genus of plants belonging to the tetrandria class; and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

SALVAGE-MONEY, a reward allowed by the civil and statute law for the saving of ships or goods from the danger of the sea, pirates, or enemies.—Where any ship is in danger of being stranded, or driven on shore, justices of the peace are to command the constables to assemble as many persons as are necessary to preserve it; and, on its being preserved by their means, the persons assisting therein shall, in 30 days after, be paid a reasonable reward for their salvage; otherwise the ship or goods shall remain in the custody of the officers of the customs as a security for the same.

SALVATION, means the safety or preservation of any thing which is or has been in danger, and is generally used in a religious sense, when it means preservation from eternal death, or reception to the happiness of heaven, which is now offered to all men by the Christian religion upon certain conditions. The Hebrews but rarely make use of concrete terms as they are called, but often of abstracted. Thus, instead of saying that God saves them and protects them, they say that God is their salvation. Thus the word of salvation, the joy of salvation, the rock of salvation, the shield of salvation, the horn of salvation, &c. is as much as to say, The word that declares deliverance; the joy that attends the escaping a great danger; a rock where any one takes refuge, and where he may be in safety from his enemy; a buckler, that secures him from the arm of the enemy; a horn or ray of light, of happiness and salvation, &c. See THEOLOGY, &c.

SALVATOR ROSA. See ROSA.

SALVE REGINA, among the Romanists, the name of a Latin prayer, addressed to the Virgin, and sung after complines, as also upon the point of executing a criminal. Durandus says, it was composed by Peter bishop of Compostella. The custom of singing the *salve regina* at the close of the office was begun by order of St Dominic, and first in the congregation of Dominicans at Bologna, about 1237. Gregory IX. first appointed it to be general. St Bernard added the conclusion, *O dulcis! O pia*, &c.

SALVIA, SAGE, a genus of plants belonging to the digynia class; and in the natural method ranking under the 42d order, *Verticillatæ*. See BOTANY *Index*.

SALVIANUS, an ancient father of the Christian church, who flourished in the 5th century, and was well skilled in the sciences. It is said he lived in continence with his wife Palladia, as if she had been his sister; and that he was so afflicted at the wickedness of that age, that he was called the *Jeremiah of the fifth century*. He acquired such reputation for his piety and learning, that he was named the *master of the bishops*. He wrote a Treatise on Providence; another on Avarice; and some epistles, of which Baluze has given an excellent edition; that of Conrad Rittershusius, in 2 vols octavo, is also esteemed.

SALUTATION, the act of saluting, greeting, or paying respect and reverence to any one.

When men (writes the compiler of *L'Esprit des Usages*

Salutation. *Usages et des Coutumes*) salute each other in an amicable manner, it signifies little whether they move a particular part of the body, or practise a particular ceremony. In these actions there must exist different customs. Every nation imagines it employs the most reasonable ones; but all are equally simple, and none are to be treated as ridiculous. This infinite number of ceremonies may be reduced to two kinds; to reverences or salutations; and to the touch of some part of the human body. To bend and prostrate one's self to express sentiments of respect, appears to be a natural motion; for terrified persons throw themselves on the earth when they adore invisible beings. The affectionate touch of the person they salute, is an expression of tenderness. As nations decline from their ancient simplicity, much farce and grimace are introduced. Superstition, the manners of a people, and their situation, influence the modes of salutation; as may be observed from the instances we collect.

Modes of salutation have sometimes very different characters, and it is no uninteresting speculation to examine their shades. Many display a refinement of delicacy, while others are remarkable for their simplicity or for their sensibility. In general, however, they are frequently the same in the infancy of nations, and in more polished societies. Respect, humility, fear, and esteem, are expressed much in a similar manner; for these are the natural consequences of the organization of the body. These demonstrations become, in time, only empty civilities, which signify nothing. We shall notice what they were originally, without reflecting on what they are.

The first nations have no peculiar modes of salutation; they know no reverences, or other compliments, or they despise and disdain them. The Greenlanders laugh when they see an European uncover his head and bend his body before him whom he calls his superior. The islanders, near the Philippines, take the hand or foot of him they salute, and with it they gently rub their face. The Laplanders apply their nose strongly against that of the person they salute. Dampier says, that at New Guinea they are satisfied in placing on their heads the leaves of trees, which have ever passed for symbols of friendship and peace. This is at least a picturesque salute.

Other salutations are very incommodious and painful; it requires great practice to enable a man to be polite in an island situated in the straits of Sunda. Houtman tells us, they saluted him in this odd way: "They raised his left foot, which they passed gently over the right leg, and from thence over his face." The inhabitants of the Philippines bend their body very low, in placing their hands on their cheeks, and raising at the same time one foot in the air, with their knee bent. An Ethiopian takes the robe of another, and ties it about his own waist, so that he leaves his friend half naked. This custom of undressing on these occasions takes other forms; sometimes men place themselves naked before the person whom they salute; it is to show their humility, and that they are unworthy of appearing in his presence. This was practised before Sir Joseph Banks, when he received the visit of two female Otaheitans. Their innocent simplicity, no doubt, did not appear immodest in the eyes of the *virtuoso*. Sometimes they only undress partially. The Japanese only take off a slipper; the people of Arracan, their sandals in the street, and their stockings in the house. Salutation.

In the progress of time, it appears servile to uncover one's self. The grandees of Spain claim the right of appearing covered before the king, to show that they are not so much subjected to him as the rest of the nation; and (this writer observes) we may remark, that the English do not uncover their heads so much as the other nations of Europe. In a word, there is not a nation (observes the humorous Montaigne), even to the people who, when they salute, turn their backs on their friends, but that can be justified in their customs. It must be observed of the negroes, that they are lovers of ludicrous actions, and thus make all their ceremonies farcical. The greater part pull the fingers till they crack. Snelgrave gives an odd representation of the embassy which the king of Dahomy sent to him. The ceremonies of salutation consisted in the most ridiculous contortions. When two negro monarchs visit, they embrace in snapping three times the middle finger.

Barbarous nations frequently imprint on their salutations the dispositions of their character. When the inhabitants of Carmena (says Athenæus) would show a peculiar mark of esteem, they breathed a vein, and presented for the beverage of their friend the blood as it issued. The Franks tore hair from their head, and presented it to the person they saluted. The slave cut off his hair, and offered it to his master. The Chinese are singularly affected in their personal civilities: they even calculate the number of their reverences. These are their most remarkable postures. The men move their hands in an affectionate manner, while they are joined together on the breast, and bow their head a little. If they respect a person, they raise their hands joined, and then lower them to the earth in bending the body. If two persons meet after a long separation, they both fall on their knees, and bend the face to the earth; and this ceremony they repeat two or three times. Surely we may differ here with the sentiment of Montaigne, and confess this ceremony to be ridiculous. It arises from their national affectation. They substitute artificial ceremonies for natural actions. Their expressions mean as little as their ceremonies. If a Chinese is asked how he finds himself in health? he answers, *Very well; thanks to your abundant felicity.* If they would tell a man that he looks well, they say, *Prosperity is painted on your face;* or *Your air announces your happiness.* If you render them any service, they say, *My thanks should be immortal.* If you praise them, they answer, *How shall I dare to persuade myself of what you say of me?* If you dine with them, they tell you at parting, *We have not treated you with sufficient distinction.* The various titles they invent for each other it would be impossible to translate.

It is to be observed, that all these answers are prescribed by the Chinese ritual, or academy of compliments. There are determined the number of bows; the expressions to be employed; the genuflections, and the inclinations which are to be made to the right or left hand; the salutations of the master before the chair where the stranger is to be seated, for he salutes it most profoundly, and wipes the dust away with the skirts of his robe; all these and other things are noticed, even to the silent gestures, by which you are entreated to enter the house. The lower class of people are equally nice

Salutation, Salute.

nice in these punctilios; and ambassadors pass 40 days in practising them before they are enabled to appear at court. A tribunal of ceremonies has been erected, and every day very odd decrees are issued, to which the Chinese most religiously submit.

The marks of honour are frequently arbitrary; to be seated, with us, is a mark of repose and familiarity; to stand up, that of respect. There are countries, however, in which princes will only be addressed by persons who are seated, and it is considered as a favour to be permitted to stand in their presence. This custom prevails in despotic countries. A despot cannot suffer without disgust the elevated figure of his subjects: he is pleased to bend their bodies with their genius: his presence must lay those who behold him prostrate on the earth: he desires no eagerness, no attention; he would only inspire terror.

The pope makes no reverence to any mortal except the emperor, to whom he stoops a very little when he permits him to kiss his lips.

SALUTE, in military matters, a discharge of artillery, or small arms, or both, in honour of some person of extraordinary quality. The *colours* likewise salute royal persons, and generals commanding in chief; which is done by lowering the point to the ground. In the field, when a regiment is to be reviewed by the king or his general, the drums beat a march as he passes along the line, and the officers salute one another, bowing their half-pikes or swords to the ground; then recover and take off their hats. The ensigns salute all together, by lowering their colours.

SALUTE, in the navy, a testimony of deference or homage rendered by the ships of one nation to another, or by ships of the same nation to a superior or equal.

This ceremony is variously performed, according to the circumstances, rank, or situation, of the parties. It consists in firing a certain number of cannon, or volleys of small arms; in striking the colours or top-sails; or in one or more general shouts of the whole ship's crew, mounted on the masts or rigging for that purpose.

The principal regulations with regard to salutes in the royal navy are as follows.

"When a flag-officer salutes the admiral and commander in chief of the fleet, he is to give him fifteen guns; but when captains salute him, they are to give him seventeen guns. The admiral and commander in chief of the fleet is to return two guns less to flag-officers, and four less to captains. Flag-officers saluting their superior or senior officer, are to give him thirteen guns. Flag-officers are to return an equal number of guns to flag-officers bearing their flags on the same mast, and two guns less to the rest, as also to captains.

"When a captain salutes an admiral of the white or blue, he is to give him fifteen guns; but to vice and rear admirals, thirteen guns. When a flag officer is saluted by two or more of his majesty's ships, he is not to return the salute till all have finished, and then to do it with such a reasonable number of guns as he shall judge proper.

"In case of the meeting of two squadrons, the two chiefs only are to exchange salutes. And if single ships meet a squadron consisting of more than one flag, the principal flag only is to be saluted. No salute shall be repeated by the same ships, unless there has been a separation of six months at least.

Salute.

"None of his majesty's ships of war, commanded only by captains, shall give or receive salutes from one another, in whatsoever part of the world they meet.

"A flag-officer commanding in chief shall be saluted upon his first hoisting his flag, by all the ships present, with such a number of guns as is allowed by the first, third, or fifth articles.

"When any of his majesty's ships shall meet with any ship or ships belonging to any foreign prince or state, within his majesty's seas (which extend to Cape Finisterre), it is expected, that the said foreign ships do strike their top-sail, and take in their flag, in acknowledgement of his majesty's sovereignty in those seas: and if any shall refuse or offer to resist, it is enjoined to all flag-officers and commanders to use their utmost endeavours to compel them thereto, and not suffer any dishonour to be done to his majesty. And if any of his majesty's subjects shall so much forget their duty, as to omit striking their top-sail in passing by his majesty's ships, the name of the ship and master, and from whence, and whither bound, together with affidavits of the fact, are to be sent up to the secretary of the admiralty, in order to their being proceeded against in the admiralty court. And it is to be observed, that in his majesty's seas, his majesty's ships are in nowise to strike to any; and that in other parts, no ship of his majesty's is to strike her flag or top-sail to any foreigner, unless such foreign ship shall have first struck, or at the same time strike, her flag or top-sail to his majesty's ship.

"The flag-officers and commanders of his majesty's ships are to be careful to maintain his majesty's honour upon all occasions, giving protection to his subjects, and endeavouring, what in them lies, to secure and encourage them in their lawful commerce; and they are not to injure, in any manner, the subjects of his majesty's friends and allies.

"If a foreign admiral meet with any of his majesty's ships, and salutes them, he shall receive gun for gun. If he be a vice-admiral, the admiral shall answer with two guns less. If a rear-admiral, the admiral and vice-admiral shall return two less. But if the ship be commanded by a captain only, the flag-officer shall give two guns less, and captains an equal number.

"When any of his majesty's ships come to an anchor in a foreign port or road, within cannon-shot of its forts, the captain may salute the place with such a number of guns as have been customary, upon good assurance of having the like number returned, but not otherwise. But if the ship bears a flag, the flag-officer shall first carefully inform himself how flags of like rank, belonging to other crowned heads, have given or returned salutes, and to insist upon the same terms of respect.

"It is allowed to the commanders of his majesty's ships in foreign parts, to salute the persons of any admirals, commanders in chief, or captains of ships of war of foreign nations, and foreign noblemen, or strangers of quality, as also the factories of the king's subjects, coming on board to visit the ship; and the number of guns is left to the commander, as shall be suitable to the occasion and the quality of the persons visiting; but he is nevertheless to remain accountable for any excesses in the abuse of this liberty. If the ship visited be in company

Salute || Samaneans.

pany with other ships of war, the captain is not to make use of the civilities allowed in the preceding articles but with leave and consent of the commander in chief or the senior captain.

"Merchant-ships, whether foreigners or belonging to his majesty's subjects, saluting the admiral of the fleet, shall be answered by six guns less; when they salute any other flag-ships, they shall be answered by four guns less; and if they salute men of war commanded by captains, they shall be answered by two guns less. If several merchant-ships salute in company, no return is to be made till all have finished, and then by such a number of guns as shall be thought proper; but though the merchant-ships should answer, there shall be no second return.

"None of his majesty's ships of war shall salute any of his majesty's forts or castles in Great Britain or Ireland, on any pretence whatsoever."

SALUZZO, called by the French *Saluces*, a town and castle of Italy, in Piedmont, and capital of a marquisate of the same name, with a bishop's see. It is situated on an eminence at the foot of the Alps near the river Po, in E. Long. 7. 29. N. Lat. 44. 33, and is subject to the king of Sardinia.

SALUZZO, the marquisate of, a province of Piedmont in Italy, bounded on the north by Dauphiny, and the province of the Four Valleys, on the east by those of Saviglano and Fossano, on the south by that of Cona and the county of Nice, and on the west by Barcelonetta. It was ceded to the duke of Savoy in 1601.

SAMA, a town and fort in the hands of the Dutch on the Gold Coast of Africa, stands on an eminence, the fort being watered by the pleasant river of St George, that discharges itself into the sea. The town contains above 200 houses, which seem to form three distinct villages, one of which is immediately under the cannon of the Dutch fort St Sebastian. Des Marchais deems this town to be one of the largest on the whole coast, Barbot likewise agreeing with him in its situation, extent, and number of inhabitants. The sole employment of the natives is fishing; a circumstance which easily accounts for their poverty. The government of this place is republican, the magistrates having the supreme power, being subject to periodical changes, and under the authority of the king of Gavi, who seldom however interferes in the affairs of the state. This prince resides some leagues distant from the sea, is rich, and much respected by his neighbours.

SAMANEANS, in antiquity, a kind of magi or philosophers, have been confounded by some with the Bramins. They proceeded from Ariana, a province of Persia, and the neighbouring countries, spread themselves in India, and taught new doctrines.

The Bramins, before their arrival, it is said, were in the highest period of their glory, were the only oracles of India, and their principal residence was on the banks of the Ganges, and in the adjacent mountains; while the Samaneans were settled towards the Indus. Others say, that the Bramins acquired all their knowledge from the Samaneans, before whose arrival it would be difficult to prove that the Bramins were the religious teachers of the Indians. The most celebrated and ancient of the Samanean doctors was Boutta, or Budda, who was born 683 years before Christ. His scholars paid him divine honours; and his doctrine, which consisted chiefly in the transmigration of souls, and in the worship of cows, was adopted not only in India, but also in Japan, China, Siam, and Tartary. It was propagated according to M. de Sainte Croix, in Thibet, in the 8th century, and succeeded there the ancient religion of Zamolxis. The Samaneans, or Buddists, were entirely destroyed in India by the jealous rage of the Bramins, whose absurd practices and fables they affected to treat with contempt; but several of their books are still preserved and respected on the coasts of Malabar.

Samaneans || Samarcand.

We are told, too, that several of the Bramin orders have adopted their manner of living, and openly profess the greatest part of their doctrines. *L'Ezour Vedam, ou Ancien Comment du Vedam*, published by M. de S. Croix, Paris 1779. See BRAMINS.

SAMAR, a Spanish island not far from Manilla in the East Indies, is called *Samar* on the side which looks towards the other isles, and *Ibabao* on that next the ocean. Its greatest length, from Cape Baliquaton, which, with the point of Manilla, makes the strait of St Bernardino, in 13 deg. 30 min. north latitude, extends to that of Guignan in 11 deg. towards the south. The other two points, making the greatest breadth of the island, are Cabo de Spirito Santo, or *Cape of the Holy Ghost*, the high mountains of which are the first discovered by ships from New Spain; and that which lying opposite to Leyte westward, makes another strait, scarce a stone's throw over. The whole compass of the island is about 130 leagues. Between Guignan and Cape Spirito Santo is the port of Borognon, and not far from thence those of Palapa and Catubig, and the little island of Bin, and the coast of Catarman. Vessels from countries not yet discovered are very frequently cast away on the before-mentioned coast of Palapa. Within the straits of St Bernardino, and beyond Baliquaton, is the coast of Samar, on which are the villages of Ibatan, Bangahon, Cathalogan, Paranos, and Calviga. Then follows the strait of St Juanillo, without which, standing eastward, appears the point and little island of Gnignan, where the compass of the island ends. It is mountainous and craggy, but the few plains which it contains are very fertile. The fruits are much the same as those of LEYTE; but there is one particular sort, called by the Spaniards *chicoy*, and by the Chinese, who put a great value on it, *seyzu*, without kernels.

Modern Univ. Hist. vol. viii. p. 157.

SAMARA, a genus of plants belonging to the tetrandria class. See BOTANY *Index*.

SAMARCAND, or SARMACAND, an ancient and famous town of Asia, capital of the kingdom of the same name in the country of the Usbeck Tartars, with a castle and a famous university. The houses are built with stones, and it carries on a trade in excellent fruits. It is pleasantly seated near the river Sogde, a branch of the Amu. E. Long. 69. 0. N. Lat. 39. 50. This town was the capital of the kingdom of Sogdia in the time of Alexander the Great, when it was called *Maracanda*. It was afterwards the capital of the empire of Tamerlane the Great. In the time of Jenghis Khan, it was forced to yield to the arms of that cruel conqueror; by whom the garrison, amounting to 30,000 men, were butchered; 30,000 of the inhabitants, with their wives and

and children, were presented to his generals; the rest were permitted to live in the city, on paying a tribute of 300,000 dinars or crowns of gold.

SAMARIA, in *Ancient Geography*, one of the three larger Cisjordan districts, situated in the middle between Galilee to the north and Judea to the south, beginning at the village Ginæa, in the Campus Magnus, and ending at the toparchy called *Acrobatena* (Josephus). Its soil differing in nothing from that of Judea; both equally hilly and campaign, both equally fertile in corn and fruit (ib.). Called the *kingdom of Samaria in Ephraim* (Bible); comprising the ten tribes, and consequently all the country to the north of Judea and east and west of Jordan.

SAMARIA, the capital city of the kingdom of Samaria, or of the ten tribes. It was built by Omri king of Israel, who began to reign in the year of the world 3079, and died 3086 (1 Kings xvi. 24.). He bought the hill Samaria of Shemer for two talents of silver or for the sum of 684*l.* 7s. 6d. It took the name of *Samaria* from Shemer the owner of the hill; though some think there were already some beginnings of a city, because, before the reign of Omri, there is mention made of Samaria (1 Kings xiii. 32.) in the year of the world 3030. But others take this for a prolepsis, or an anticipation, in the discourse of the man of God, who speaks of Samaria under the reign of Jerobeam.

However this be, it is certain that Samaria was no considerable place, and did not become the capital city of the kingdom of Israel till after the reign of Omri. Before him, the kings of Israel dwelt at Shechem, or Tirzah. Samaria was situated upon an agreeable and fruitful hill, in an advantageous situation, and was 12 miles from Dothaim, 12 from Merrom, and four from Atharoth. Josephus says, it was a day's journey from Jerusalem. Besides, though it was built upon an eminence, yet it must have water in abundance: since we find medals struck in this city, whereon is represented the goddess Astarte treading a river under foot; which proves it to have been well watered. And Josephus observes, that when it was taken by John Hircanus the prince of the Jews, he entirely demolished it, and caused even the brook to flow over its ruins, to obliterate all the footsteps of it.

The kings of Samaria omitted nothing to make this city the strongest, the finest, and the richest that was possible. Ahab built there a palace of ivory (1 Kings xxii. 39.), that is, in which there were many ornaments of ivory. Amos describes Samaria under Jeroboam II, as a city sunk into all the excesses of luxury and effeminacy (Amos iii. 15. and iv. 1, 2.).

Ben-hadad king of Syria built public places or streets in Samaria (1 Kings xx. 34.) probably for traffic, where his people dwelt to promote trade. His son Ben-hadad besieged this place under the reign of Ahab (1 Kings xx. 1, 2, 3, &c.) in the year of the world 3103.

The following year, Ben-hadad brought an army into the field, probably with a design to march against Samaria; but his army was again cut in pieces. Some years after this, Ben-hadad came a third time, lay down before Samaria, and reduced it to such necessities by famine, that a mother was there forced to eat her own child; but the city was relieved by a sensible effect of the protection of God.

Lastly, it was besieged by Salmaneser king of Assyria, in the ninth year of Hoshea king of Israel (2 Kings xvii. 6, 7, &c.), which was the fourth of Hezekiah king of Judah. It was taken three years after, in the year of the world 3283. The prophet Hosea speaks of the cruelties exercised by Salmaneser against the besieged (Hos. x. 4, 8, 9. xiv. i.); and Micah says, that this city was reduced to a heap of stones (Mic. i. 6.). The Cuthites that were sent by Esar-haddon to inhabit the country of Samaria, did not think it worth their while to repair the ruins of this city; they dwelt at Shechem, which they made the capital city of their state. They were still upon this footing when Alexander the Great came into Phœnicia and Judea. However, the Cuthites had rebuilt some of the houses of Samaria, even from the time of the return from the captivity, since Ezra then speaks of the inhabitants of Samaria (Ezra iv. 17. Nehem. iv. 2.); and that the Samaritans, being jealous of the favours that Alexander the Great had conferred on the Jews, revolted from him while this prince was in Egypt, and burnt Andromachus alive, whom Alexander had left governor of Syria. Alexander marched against them, took Samaria, and put in Macedonians to inhabit it; giving the country round it to the Jews; and to encourage them to cultivate it, he granted them an exemption from tribute. The king of Egypt and Syria, who succeeded Alexander, deprived them of the property of this country.

But Alexander Balas king of Syria restored to Jonathan Maccabæus the cities of Lydda, Ephrem, and Ramatha, which he cut off from the country of Samaria (1 Mac. x. 30, 38, and xi. 28, 34.) Lastly, the Jews re-entered into the full possession of this whole country under John Hircanus the Asmonæan, who took Samaria, and ruined it in such a manner, according to Josephus, that he made the river run through its ruins. It continued in this condition to the year of the world 3947, when Aulus Gabinius, the proconsul of Syria, rebuilt it, and gave it the name of Gabiniana. But it was yet but very inconsiderable, till Herod the Great restored it to its ancient lustre, and gave it the Greek name of Sebaste, which in Latin is Augusta, in honour of the emperor Augustus, who had given him the property of this place.

The sacred authors of the New Testament speak but little of Samaria; and when they do mention it, it is rather in respect of the country about it, than of the city itself. (See Luke xvii. 11. John iv. 4, 5.)—It was there our Lord had the conversation with the woman of Samaria, that is, with a Samaritan woman of the city of Sychar. After the death of St Stephen, (Acts viii. 1, 2, 3.), when the disciples were dispersed through the cities of Judea and Samaria, St Philip the deacon withdrew into the city of Samaria, where he made several converts. When the apostles heard that this city had received the word of God, they sent Peter and John thither, to communicate the Holy Ghost to such as had been baptized. It was there they found Simon Magus, who offered money to the apostles, being in hopes to buy this power of communicating the Holy Ghost. Samaria is never called Sebaste in the books of the New Testament, though strangers hardly knew it but by this name. St Jerome says, that it was thought Obadiah was buried at Samaria. They also showed there the tombs of Elisha and of St John the Baptist. There are

Samaria, Samaritans.

found many ancient medals that were struck at Sebaste, or Samaria, and some bishops of this city have subscribed to the ancient councils.

SAMARITANS. We have already spoken of the Samaritans under the article CUTH. The Samaritans are the people of the city of Samaria, and the inhabitants of the province of which Samaria was the capital city. In this sense, it should seem that we might give the name of Samaritans to the Israelites of the ten tribes, who lived in the city and territory of Samaria. However, the sacred authors commonly give the name of Samaritans only to those strange people whom the kings of Assyria sent from beyond the Euphrates to inhabit the kingdom of Samaria, when they took away captive the Israelites that were there before. Thus we may fix the epoch of the Samaritans at the taking of Samaria by Salmaneser, in the year of the world 3283. This prince carried away captive the Israelites that he found in the country, and assigned them dwellings beyond the Euphrates, and in Assyria, (2 Kings xvii. 24.). He sent other inhabitants in their stead, of which the most considerable were the Cuthites, a people descended from Cush, and who are probably of the number of those whom the ancients knew by the name of Scythians.

After Salmaneser, his successor Esar-haddon was informed, that the people which had been sent to Samaria were infested by lions that devoured them, (2 Kings xvii. 25.); this he imputed to the ignorance of the people in the manner of worshipping the god of the country. Wherefore Esar-haddon sent a priest of the God of Israel that he might teach them the religion of the Hebrews. But they thought they might blend this religion with that which they professed before; so they continued to worship their idols as before, in conjunction with the God of Israel, not perceiving how absurd and incompatible these two religions were.

It is not known how long they continued in this state; but at the return from the captivity of Babylon, it appears they had entirely quitted the worship of their idols; and when they asked permission of the Israelites that they might labour with them at the rebuilding of the temple of Jerusalem, they affirmed, that from the time that Esar-haddon had brought them into this country they had always worshipped the Lord, (Ezra iv. 1, 2, 3.). And indeed, after the return from the captivity, the Scripture does not anywhere reproach them with idolatrous worship, though it does not dissemble either their jealously against the Jews, nor the ill offices they had done them at the court of Persia, by their slanders and calumnies, or the stratagems they contrived to hinder the repairing of the walls of Jerusalem.—(Nehem. ii. 10, 19. iv. 2, &c. vi. 1, 2, &c.).

It does not appear that there was any temple in Samaria, in common to all these people who came thither from beyond the Euphrates, before the coming of Alexander the Great into Judea. Before that time, every one was left to his own discretion, and worshipped the Lord where he thought fit. But they presently comprehended, from the books of Moses which they had in their hands, and from the example of the Jews their neigbours, that God was to be worshipped in that place only which he had chosen. So that since they could not go to the temple of Jerusalem which the Jews would not allow of, they bethought themselves of building a temple of their own upon Mount Gerizim, near the city of Shechem, which was then their capital. Therefore Sanballat the governor of the Samaritans, applied himself to Alexander, and told him he had a son-in-law, called Manasses, son to Jaddus the high-priest of the Jews, who had retired to Samaria with a great number of other persons of his own nation; that he desired to build a temple in this province, where he might exercise the high-priesthood; that this undertaking would be to the advantage of the king's affairs, because in building a temple in the province of Samaria, the nation of the Jews would be divided, who are a turbulent and seditious people, and by such a division would be made weaker, and less in a condition to undertake new enterprises.

Alexander readily consented to what Sanballat desired, and the Samaritans presently began their building of the temple of Gerizim, which from that time they have always frequented, and still frequent to this day, as the place where the Lord intended to receive the adoration of his people. It is of this mountain and of this temple, that the Samaritan woman of Sychar spoke to our Saviour, (John iv. 20). See GARIZIM.

The Samaritans did not long continue under the obedience of Alexander. They revolted from him the very next year, and Alexander drove them out of Samaria, put Macedonians in their room, and gave the province of Samaria to the Jews. This preference that Alexander gave to the Israelites contributed not a little to increase that hatred and animosity that had already obtained between these two people. When any Israelite had deserved punishment for the violation of some important point of the law, he presently took refuge in Samaria or Shechem, and embraced the way of worship according to the temple of Gerizim. When the Jews were in a prosperous condition, and affairs were favourable to them, the Samaritans did not fail to call themselves Hebrews, and pretended to be of the race of Abraham. But no sooner were the Jews fallen into discredit or persecution, but the Samaritans immediately disowned them, would have nothing in common with them, acknowledged themselves to be Phœnicians originally, or that they were descended from Joseph and Manasseh his son. This used to be their practice in the time of Antiochus Epiphanes.

The Samaritans, having received the Pentateuch, or the five books of Moses, from the priest that was sent by Esar-haddon, have preserved it to this day, in the same language and character it was then, that is, in the old Hebrew or Phœnician character, which we now call the Samaritan, to distinguish it from the modern Hebrew character, which at present we find in the books of the Jews. These last, after their captivity, changed their old characters, and took up those of the Chaldee, which they had been used to at Babylon, and which they continue still to use. It is wrong, says F. Calmet, to give this the name of the Hebrew character, for that can be said properly only of the Samaritan text. The critics have taken notice of some variations between the Pentateuch of the Jews and that of the Samaritans; but these varieties of reading chiefly regard the word Gerizim, which the Samaritans seem to have purposely introduced to favour their pretensions, that Mount Gerizim was the place in which the Lord was to be adored.

Samaritans. adored. The other various readings are of small importance.

The religion of this people were at first the Pagan. Every one worshipped the deity they had been used to in their own country (2 Kings xvii. 25, 30, 31.) The Babylonians worshipped Succoth-benoth; the Cuthites, Nergal; the Hamathites, Ashima; the Avites, Nibhaz and Tartak; the Sepharvites, Adrammelech and Anammelech. If we would enumerate all the names of false gods to whom the Samaritans have paid a sacrilegious worship, we should have enough to do. This matter is sufficiently perplexed, by reason of the different names by which they were adored by different nations, insomuch that it would be almost impossible to clear up this affair. See SUCCOTH-BENOTH, &c. Afterwards, to this profane worship the Samaritans added that of the Lord, the God of Israel, (2 Kings xvii. 29, 30, 31, 32.) They gave a proof of their little regard to this worship of the true God, when under Antiochus Epiphanes they consecrated their temple at Gerizim to Jupiter Argivus. In the time of Alexander the Great, they celebrated the sabbatical year, and consequently the year of jubilee also. We do not know whether they did it exactly at the same time with the Jews, or whether they observed any other epoch; and it is to little purpose that some critics have attempted to ascertain the first beginning of it. Under the kings of Syria they followed the epoch of the Greeks, or that of the Seleucidæ, as other people did that were under the government of the Seleucidæ. After that Herod had re-established Samaria, and had given it the name of Sebaste, the inhabitants of this city, in their medals, and all public acts, took the date of this new establishment. But the inhabitants of Samaria, of which the greater part were Pagans or Jews, were no rule to the other Samaritans, who probably reckoned their years according to the reigns of the emperors they were subject to, till the time they fell under the jurisdiction of the Mahometans, under which they live at this day; and they reckon their year by the Hegira, or, as they speak, according to the reign of Ishmael, or the Ishmaelites. Such of our readers as desire to be further acquainted with the history of the ancient Samaritans, we refer to the works of Josephus, where they will find that subject largely treated of.

As to their belief, it is objected to them, that they receive only the Pentatench, and reject all the other books of Scripture, chiefly the prophets, who have more expressly declared the coming of the Messiah.—They have also been accused of believing God to be corporeal, of denying the Holy Ghost, and the resurrection of the dead. Jesus Christ reproaches them (John iv. 22.) with worshipping they know not what; and in the place already referred to he seems to exclude them from salvation, when he says, that "Salvation is of the Jews." True it is, that these words might only signify, that the Messiah was to proceed from the Jews; but the crime of schism alone, and a separation from the true church, was sufficient to exclude them from salvation. The Samaritan woman is a sufficient testimony that the Samaritans expected a Messiah, who they hoped would clear up all their doubts (John iv. 25.) Several of the inhabitants of Shechem believed at the preaching of Jesus Christ, and several of Samaria believed at that of St Philip; but it is said, they soon fell back to their former errors, being perverted by Simon Magus.

The Samaritans at present are very few in number. Joseph Scaliger, being curious to know their usages, wrote to the Samaritans of Egypt, and to the high-priest of the whole sect who resided at Neapolis in Syria. They returned two answers to Scaliger, dated in the year of the Hegira 998. These were preserved in the French king's library, and were translated into Latin by Father Morin, and printed in England in the collection of that father's letters, in 1682, under the title of *Antiquitates Ecclesiæ Orientalis*. By these letters it appears, that they believe in God, in his servant Moses, the holy law, the mountain Gerizim, the house of God, the day of vengeance and of peace; that they value themselves upon observing the law of Moses in many points more rigidly than the Jews themselves.—They keep the sabbath with the utmost strictness required by the law, without stirring from the place they are in, but only to the synagogue. They go not out of the city, and abstain from their wives on that day. They never delay circumcision beyond the eighth day. They still sacrifice to this day in the temple on Mount Gerizim, and give to the priest what is enjoined by the law. They do not marry their own nieces, as the Jews do, nor do they allow themselves a plurality of wives. Their hatred for the Jews may be seen through all the history of Josephus, and in several places of the New Testament. The Jewish historian informs us, that under the government of Coponius, one passover night, when they opened the gates of the temple, some Samaritans had scattered the bones of dead men there, to insult the Jews, and to interrupt the devotion of the festival. The evangelists show us, that the Jews and Samaritans held no correspondence together. (John iv. 9.) "The Jews have no dealings with the Samaritans." And the Samaritan woman of Sychar was much surprised that Jesus talked with her, and asked drink of her, being a Samaritan. When our Saviour sent his apostles to preach in Judea, he forbade them to enter into the Samaritan cities, (Matt. x. 5.); because he looked upon them as schismatics, and as strangers to the covenant of Israel. One day when he sent his disciples to provide him a lodging in one of the cities of the Samaritans, they would not entertain him, because they perceived he was going to Jerusalem. (Luke ix. 53.) "Because his face was as though he would go to Jerusalem." And when the Jews were provoked at the reproaches of Jesus Christ, they told him he was a Samaritan (John viii. 48.) thinking they could say nothing more severe against him. Josephus relates, that some Samaritans having killed several Jews as they were going to the feast at Jerusalem, this occasioned a kind of a war between them. The Samaritans continued their fealty to the Romans, when the Jews revolted from them; yet they did not escape from being involved in some of the calamities of their neighbours.

There are still at this day some Samaritans at Shechem, otherwise called Naplouse. They have priests there, who say they are of the family of Aaron. They have a high-priest, who resides at Shechem, or at Gerizim, who offers sacrifices there, and who declares the feast of the passover,

Samaritans || Samiels.

passover, and all the other feasts, to all the dispersed Samaritans. Some of them are to be found at Gaza, some at Damascus, and some at Grand Cairo.

SAMBUCUS, Elder, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 43d order, *Dumosæ*. See Botany *Index*.

All the sorts of elder are of the deciduous tribe, very hardy, and grow freely anywhere; are generally free shooters, but particularly the common elder and varieties, which make remarkably strong, jointed shoots, of several feet in length, in one season; and they flower mostly in summer, except the racemose elder, which generally begins flowering in April; and the branches being large, spreading, and very abundant, are exceedingly conspicuous; but they emit a disagreeable odour. The flowers are succeeded in most of the sorts by large bunches of ripe berries in autumn, which, although very unpalatable to eat, are in high estimation for making that well known cordial liquor called *elder wine*, particularly the common black-berried elder. In gardening, the elder is both useful and ornamental, especially in extensive grounds.

SAMIAN earth, in the materia medica, the name of two species of marl used in medicine, viz. The white kind, called by the ancients *collyrium samium*, being astringent, and therefore good in diarrhœas, dysenteries, and hæmorrhagies; they also used it externally in inflammations of all kinds. 2. The brownish white kind, called *aster samius* by Dioscorides; this also stands recommended as an astringent.

Ives's Voyage from England to India in 1754.

SAMIELS, the Arabian name of a hot wind peculiar to the desert of Arabia. It blows over the desert in the months of July and August from the north-west quarter, and sometimes it continues with all its violence to the very gates of *Bagdad*, but never affects any body within the walls. Some years it does not blow at all, and in others it appears six, eight, or ten times, but seldom continues more than a few minutes at a time. It often passes with the apparent quickness of lightning. The Arabians and Persians, who are acquainted with the appearance of the sky at or near the time this wind arises, have warning of its approach by a thick haze, which appears like a cloud of dust arising out of the horizon; and they immediately upon this appearance throw themselves with their faces to the ground, and continue in that position till the wind is passed, which frequently happens almost instantaneously; but if, on the contrary, they are not careful or brisk enough to take this precaution, which is sometimes the case, and they get the full force of the wind, it is instant death.

The above method is the only one which they take to avoid the effects of this fatal blast; and when it is over, they get up and look round them for their companions; and if they see any one lying motionless, they take hold of an arm or leg, and pull or jerk it with some force; and if the limb thus agitated separates from the body, it is a certain sign that the wind has had its full effect; but if, on the contrary, the arm or leg does not come away, it is a sure sign there is life remaining, although to every outward appearance the person is dead; and in that case they immediately cover him or them with clothes, and administer some warm diluting liquor to cause a perspiration, which is certainly, but slowly, brought about.

The Arabs themselves can say little or nothing about the nature of this wind, only that it always leaves behind it a very strong sulphureous smell, and that the air at these times is quite clear, except about the horizon, in the north-west quarter, before observed, which gives warning of its approach. We have not been able to learn whether the dead bodies are scorched, or dissolved into a kind of gelatinous substance; but from the stories current about them, there has been frequent reason to believe the latter; and in that case such fatal effects may be attributed rather to a noxious vapour than to an absolute and excessive heat. The story of its going to the gates of Bagdad and no farther, may be reasonably enough accounted for, if the effects are attributed to a poisonous vapour, and not an excessive heat. The above mentioned wind, Samiel, is so well known in the neighbourhood of Bagdad and Bassora, that the very children speak of it with dread.

Samiels || Samos.

SAMOGITIA, a province of Poland, bounded on the north by Courland, on the east by Lithuania, on the west by the Baltic sea, and on the south by Regal Prussia, being about 175 miles in length and 125 in breadth. It is full of forests and very high mountains, which feed a great number of cattle, and produce a large quantity of honey. There are also very active horses, in high esteem. The inhabitants are clownish, but honest; and they will not allow a young woman to go out in the night without a candle in her hand and two bells at her girdle. Rossenna and Worma are the principal places.

SAMOIEDA, a country of the Russian empire, between Asiatic Tartary and Archangel, lying along the sea-coast as far as Siberia. The inhabitants are extremely rude and barbarous. They travel on the snow on sledges, drawn by an animal like a rein-deer, but with the horns of a stag. Their stature is short; their shoulders and faces are broad, with flat broad noses, hanging lips, and staring eyes; their complexion is dark, their hair long and black; and they have very little beard. If they have any religion at all, it is idolatry, though there have been some attempts of late to convert them. Their huts are made of birch bark sewed together, and laid upon stakes set in the ground; at the top is a hole to let out the smoke; the fire is made in the middle, round which they repose in the night.—Their chief employment is hunting and fishing.

SAMOLUS, Water Pimpernel; a genus of plants belonging to the pentandria class, and in the natural method ranking under the 21st order, *Precæ*. See Botany *Index*.

SAMOS, in *Ancient Geography*, an island at no great distance from the promontory Mycale, on the continent of the Hither Asia, and opposite to Ephesus; the distance only seven stadia (Strabo): a free island, in compass 87 miles (Pliny); or 100 (Isodorus); with a cognominal town (Ptolemy, Horace); famous for the worship and a temple of Juno, with a noted asylum (Virgil, Strabo, Tacitus); and hence their coin exhibited a peacock (Athenæus): The country of Pythagoras, who, to avoid the oppression of tyrants, retired to Italy, the land of freedom. Samos, though not so happy in producing wine, which Strabo wonders at, all the adjoining islands yielding a generous sort, yet abounds in all the necessaries of life. The *Vasa Samia*, among earthen ware, were held in high repute. *Samii*, the people

Samos, Sampan.

ple (Ovid).—The island is now in the hands of the Turks. It is about 32 miles in length, and 22 in breadth, and extremely fertile. The inhabitants live at their ease, their taxation by the Turks being moderate. The women are very nasty and ugly, and they never shift above once a month. They are clothed in the Turkish manner, except a red coif, and their hair hanging down their backs, with plates of silver or block-tin fastened to the ends.—They have abundance of melons, lentils, kidney-beans, and excellent muskadine grapes. They have white figs four times as big as the common sort, but not so well tasted. Their silk is very fine, and their honey and wax admirable; besides which, their poultry are excellent: They have iron mines, and most of the soil is of a rusty colour: they have also emery stone, and all the mountains are of white marble. The inhabitants are about 12,000, who are almost all Greeks; and the monks and priests occupy most part of the island. They have a bishop who resides at Cora. See POLYCRATES.

Osbec's Voyage to China and the East Indies.

SAMPAN, is a Chinese boat without a keel, looking almost like a trough; they are made of different dimensions, but are mostly covered. These boats are as long as sloops, but broader, almost like a baking trough; and have at the end one or more decks of bamboo sticks: the cover or roof is made of bamboo sticks, arched over in the shape of a grater; and may be raised or lowered at pleasure: the sides are made of boards, with little holes, with shutters instead of windows: the boards are fastened on both sides to posts, which have notches like steps on the inside, that the roof may be let down, and rest on them: on both ends of the deck are commonly two little doors, at least there is one at the hindmost end. A fine white smooth carpet, spread up as far as the boards, makes the floor, which in the middle consists of loose boards; but this carpet is only made use of to sleep on. As these boats greatly differ from ours in shape, they are likewise rowed in a different manner: for two rowers, posting themselves at the back end of the sampan, work it forwards very readily by the motion of two oars; and can almost turn the vessel just as they please: the oars, which are covered with a little hollow quadrangular iron, are laid on iron swivels, which are fastened in the sides of the sampan: at the iron the oars are pierced, which makes them look a little bent: in common, a rower sits before with a short oar; but this he is forced to lay aside when he comes near the city, on account of the great throng of sampans; and this inconvenience has confirmed the Chinese in their old way of rowing. Instead of pitch, they make use of a cement like our putty, which we call *chinam*, but the Chinese call it *kiang*. Some authors say that this cement is made of lime and a resin exuding from the tree *tong yea*, and bamboo ockam.

Besides a couple of chairs, they have the following furniture: two oblong tables or boards on which some Chinese characters are drawn; a lanthorn for the night time, and a pot to boil rice in. They have also a little cover for their household god, decorated with gilt paper and other ornaments: before him stands a pot filled with ashes, into which the tapers are put before the idol. The candles are nothing else than bamboo chips, to the upper end of which saw-dust of sandal-wood is stuck on with gum. These tapers are everywhere lighted before the idols in the pagodas, and before the doors in the streets; and, in large cities, occasion a smoke very pernicious to the eyes. Before this idol stands some *samso*, or Chinese brandy, water, &c. We ought to try whether the Chinese would not like to use juniper-wood instead of sandal-wood; which latter comes from Suratte, and has almost the same smell with juniper.

Sampan || Sana.

SAMSON, one of the judges of Israel, memorable for his supernatural strength, his victories over the Philistines, and his tragical end, as related in the book of *Judges*.

SAMSON's Post, a sort of pillar erected in a ship's hold, between the lower deck and the kelson, under the edge of a hatchway, and furnished with several notches that serve as steps to mount or descend, as occasion requires. This post being firmly driven into its place, not only serves to support the beam and fortify the vessel in that place, but also to prevent the cargo or materials contained in the hold, from shifting to the opposite side, by the rolling of the ship in a turbulent and heavy sea.

BOOKS *of* SAMUEL, two canonical books of the Old Testament, as being usually ascribed to the prophet Samuel.

The books of Samuel and the books of Kings are a continued history of the reigns of the kings of Israel and Judah; for which reason the books of Samuel are likewise styled *the first and second books of Kings*. Since the first 24 chapters contain all that relates to the History of Samuel, and the latter part of the first book and all the second include the relation of events that happened after the death of that prophet, it has been supposed that Samuel was author only of the first 24 chapters, and that the prophets Gad and Nathan finished the work. The first book of Samuel comprehends the transactions under the government of Eli and Samuel, and under Saul the first king; and also the acts of David while he lived under Saul; and is supposed to contain the space of 101 years. The scond book contains the history of about 40 years, and is wholly spent in relating the transactions of David's reign.

SAMYDA, a genus of plants belonging to the decandria class; and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*

Niebuhr's Travels by Heron.

SANA, or SANAA, a large, populous, and handsome town of Asia, capital of Arabia Felix, is situated in Proper Yemen, at the foot of Mount Nikkum, on which are still to be seen the ruins of a castle, which the Arabs suppose to have been built by Shem. Near this mountain stands the castle; a rivulet runs upon the other side; and near it is the Bustan el Metwokkel, a spacious garden, which was laid out by Imam Metwokkel, and has been embellished with a fine garden by the reigning imam. The walls of the city, which are built of bricks, exclude this garden, which is inclosed within a wall of its own. The city, properly so called, is not very extensive: one may walk round it all in an hour. The city-gates are seven. Here are a number of mosques, some of which have been built by Turkish pachas. Sana has the appearance of being more populous than it actually is; for the gardens occupy a part of

Sana. of the space within the walls. In Sana are only 12 public baths; but many noble palaces, three of the most splendid of which have been built by the reigning imam. The palace of the late imam El Manzor, with some others, belong to the royal family, who are very numerous.

The Arabian palaces are built in a style of architecture different from ours. The materials are, however, burnt bricks, and sometimes even hewn stones; but the houses of the common people are of bricks which have been dried in the sun. There are no glass windows, except in one palace, near the citadel. The rest of the houses have, instead of windows, merely shutters, which are opened in fair weather, and shut when it is foul. In the last case, the house is lighted by a round wicket, fitted with a piece of Muscovy glass; some of the Arabians use small panes of stained glass from Venice.

At Sana, and in the other cities of the East, are great simseras or caravanseras for merchants and travellers. Each different commodity is sold in a separate market. In the market for bread, none but women are to be seen; and their little shops are portable. The several classes of mechanics work, in the same manner, in particular quarters in the open street. Writers go about with their desks, and make out brieves, copy-books, and instruct scholars in the art of writing, all at the same time. There is one market where old clothes are taken in exchange for new.

Wood for the carpenter's purpose is extremely dear through Yemen; and wood for the fire at Sana is no less so. All the hills near the city are bleak and bare, and wood is therefore to be brought hither from the distance of three days' journey; and a camel's burthen commonly costs two crowns. This scarcity of wood is partially supplied by the use of a little pit-coal. Peats are burnt here; but they are so bad, that straw must be intermixed to make them burn.

Fruits are, however, very plenteous at Sana. Here are more than 20 different species of grapes, which, as they do not all ripen at the same time, continue to afford a delicious refreshment for several months. The Arabs likewise preserve grapes, by hanging them up in their cellars, and eat them almost through the whole year. The Jews make a little wine, and might make more if the Arabs were not such enemies to strong liquors. A Jew convicted of conveying wine into an Arab's house is severely punished; nay, the Jews must even use great caution in buying and selling it among themselves. Great quantities of grapes are dried here; and the exportation of raisins from Sana is considerable. One sort of these grapes is without stones, and contains only a soft grain, the presence of which is not perceptible in eating the raisin.

In the castle, which stands on a hill, are two palaces. "I saw (says Niebuhr) about it some ruins of old buildings, but, notwithstanding the antiquity of the place, no remarkable inscriptions. There is the mint, and a range of prisons for persons of different ranks. The reigning imam resides in the city; but several princes of the blood-royal live in the castle. The battery is the most elevated place about these buildings; and there I met with what I had no expectation of, a German mortar, with this inscription, *Jorg Selos Gosmick*, 1513. I saw also upon the same battery seven iron cannons, partly buried in the sand, and partly set upon broken carriages. These seven small cannons, with six others near the gates, which are fired to announce the return of the different festivals, are all the artillery of the capital of Yemen."

SANADON, Noel Etienne, a Jesuit, was born at Rouen in 1676, and was a distinguished professor of humanity at Caen. He there became acquainted with Huet, bishop of Avranches, whose taste for literature and poetry was similar to his own. Sanadon afterwards taught rhetoric at the university of Paris, and was entrusted with the education of the prince of Conti, after the death of Du Morceau. In 1728 he was made librarian to Louis XIV, an office which he retained to his death. He died on the 21st September 1733, in the 58th year of his age.

His works are, 1. Latin Poems, in 12mo, 1715, and reprinted by Barbou, in 8vo, 1754. His style possesses the graces of the Augustan age. His language is pure and nervous; his verses are harmonious, and his thoughts are delicate and well chosen; but sometimes his imagination flags. His Latin poems consist of Odes, Elegies, Epigrams, and others, on various subjects. 2. A translation of Horace, with Remarks, in 2 vols. 4to, printed at Paris in 1727; but the best edition of this work was printed at Amsterdam in 1735, in 8 vols. 12mo, in which are also inserted the versions and notes of M. Dacier. Sanadon translated with elegance and taste; but he has not preserved the sublimity of the original in the odes, nor the energy and precision in the epistles and satires. In general, his version is rather a paraphrase than a faithful translation. Learned men have justly censured him for the liberty which he has taken in making considerable changes in the order and structure of the odes. He has also given offence by his uncouth orthography. 3. A Collection of Discourses delivered at different times, which afford strong proofs of his knowledge of oratory and poetry. 4. A book entitled *Prieres et Instructions Chretiennes.*

SANBALLAT, the chief or governor of the Cuthites or Samaritans, was always a great enemy to the Jews. He was a native of Horon, or Horonaim, a city beyond Jordan, in the country of the Moabites. He lived in the time of Nehemiah, who was his great opponent, and from whose book we learn his history. There is one circumstance related of him which has occasioned some dispute among the learned; and the state of the question is as follows: When Alexander the Great came into Phœnicia, and sat down before the city of Tyre, Sanballat quitted the interests of Darius king of Persia, and went at the head of 8000 men to offer his service to Alexander. This prince readily entertained him, and being much solicited by him, gave him leave to erect a temple upon Mount Gerizim, where he constituted his son-in-law Manasseh the high-priest. But this story carries a flagrant anachronism: for 120 years before this, that is, in the year of the world 3550, Sanballat was governor of Samaria; wherefore the learned Dr Prideaux (in his Connexion of the Histories of the Old and New Testament) supposes two Sanballats, and endeavours to reconcile it to truth and probability, by showing it to be a mistake of Josephus. This author makes Sanballat to flourish in the time of Darius Codomannus, and to build his temple upon

Sanballat. || Sanchoniatho.

Mount Gerizim by license from Alexander the Great; whereas it was performed by leave from Darius Nothus, in the 15th year of his reign. This takes away the difficulty arising from the great age of Sanballat, and brings him to be cotemporary with Nehemiah, as the Scripture history requires.

SANCHEZ, François, called in Latin *Sanctius*, was of Las Brocas in Spain, and has been dignified by his own countrymen with the pompous titles of *le Pere de la Langue Latine, et le Docteur de tous les Gens de lettres*. He wrote, 1. An excellent treatise intitled Minerva, or *de Causis Linguæ Latinæ*, which was published at Amsterdam in 1714, in 8vo. The authors of the *Port-Royal Methode de la Langue Latine* have been much indebted to this work. 2. The Art of Speaking, and the Method of translating Authors. 3. Several other learned pieces on grammar. He died in the year 1600, in his 77th year.

We must be careful to distinguish him from another *François Sanchez*, who died at Toulouse in 1632. This last was a Portuguese physician who settled at Toulouse, and, though a Christian, was born of Jewish parents. He is said to have been a man of genius and a philosopher. His works have been collected under the title of *Opera Medica. His juncti sunt tractatus quidam philosophici non insubtiles.* They were printed at Toulouse in 1636.

SANCHONIATHO, a Phenician philosopher and historian, who is said to have flourished before the Trojan war about the time of Semiramis. Of this most ancient writer, the only remains extant are sundry fragments of cosmogony, and of the history of the gods and first mortals, preserved by Eusebius and Theodoret; both of whom speak of Sanchoniatho as an accurate and faithful historian; and the former adds, that his work, which was translated by Philo-Byblius from the Phenician into the Greek language, contains many things relating to the history of the Jews which deserve great credit, both because they agree with the Jewish writers, and because the author received these particulars from the annals of Hierombalus, a priest of the god Jao.

Several modern writers, however, of great learning, have called in question the very existence of Sanchoniatho, and have contended, with much plausibility, that the fragments which Eusebius adopted as genuine upon the authority of Porphyry, were forged by that author or the pretended translator Philo, from enmity to the Christians, and that the Pagans might have something to show of equal antiquity with the books of Moses. These opposite opinions have produced a controversy that has filled volumes, and of which our limits would hardly admit of an abstract. We shall therefore in few words state what to us appears to be the truth, and refer such of our readers as are desirous of fuller information to the works of the authors (A) mentioned at the bottom of the page.

Sanchoniatho.

The controversy respecting Sanchoniatho resolves itself into two questions. 1. Was there in reality such a writer? 2. Was he of the very remote antiquity which his translator claims for him?

That there was really such a writer, and that the fragments preserved by Eusebius are indeed parts of his history, interpolated perhaps by the translator (B), we are compelled to believe by the following reasons. Eusebius, who admitted them into his work as authentic, was one of the most learned men of his age, and a diligent searcher into antiquity. His conduct at the Nicene council shows, that on every subject he thought for himself, neither biassed by authority to the one side, nor carried over by the rage of innovation to the other. He had better means than any modern writer can have of satisfying himself with respect to the authenticity of a very extraordinary work, which had then but lately been translated into the Greek language, and made generally known; and there is nothing in the work itself, or at least in those parts of it which he has preserved, that could induce a wise and good man to obtrude it upon the public as genuine, had he himself suspected it to be spurious. Too many of the Christian fathers were indeed very credulous, and ready to admit the authenticity of writings without duly weighing the merits of their claim; but then such writings were always believed to be favourable to the Christian cause, and inimical to the cause of Paganism. That no man of common sense could suppose the cosmogony of Sanchoniatho favourable to the cause of revealed religion, a farther proof cannot be requisite than what is furnished by the following extract.

"He supposeth, or affirms, that the principles of the universe were a dark and windy air, or a wind made of dark air, and a turbulent evening *chaos;* and that these things were boundless, and for a long time had no bound or figure. But when this wind fell in love with his own principles, and a mixture was made, that mixture was called *desire* or *cupid* (πόθος.)

"This mixture completed, was the beginning of the (κτίσεως) making of all things. But that wind did not know its own production; and of this, with that wind was begotten *Mot*, which some call *Mua*, others the putrefaction of a watery mixture. And of this came all the seed of this building, and the generation of the universe.

"But there were certain animals, which had no sense, out of which were begotten intelligent animals, and were called *Zophesemin*, that is, the spies or overseers of Heaven; and were formed alike in the shape of an egg. Thus shone out *Mot*, the sun and the moon, the less and the greater stars.

"And the air shining thoroughly with light, by its fiery

(A) Bochart, Scaliger, Vossius, Cumberland, Dodwell, Stillingfleet, Mosheim's Cudworth, and Warburton.

(B) Of these there are indeed several proofs. Philo makes Sanchoniatho speak of *Byblus* as the most ancient city of Phenicia, which, in all probability, it was not. We read in the book of Judges of *Berith* or *Berytus*, the city where Sanchoniatho himself lived; but not of Byblus, which was the native city of Philo, and to which he is therefore partial. He makes him likewise talk of the Greeks at a period long before any of the Grecian states were known or probably peopled.

fiery influence on the sea and earth, winds were begotten, and clouds and great defluxions of the heavenly waters. And, when all these things first were parted, and were separated from their proper place by the heat of the sun, then all met again in the air, and dashed against one another, and were broken to pieces; whence thunders and lightnings were made: and at the stroke of these thunders the fore-mentioned intelligent animals were awakened, and frighted with the sound; and male and female stirred in the earth and in the sea: This is the generation of animals.

"After these things our author (Sanchoniatho) goes on saying: 'These things are written in the *Cosmogony of Taautus*, and in his memoirs; and out of the conjectures and surer natural signs which his mind saw, and found out, and wherewith he hath enlightened us.'"

"Afterwards declaring the names of the winds, *north* and *south* and the rest, he makes this epilogue. 'But these first men consecrated the plants shooting out of the earth, and judged them gods, and worshipped them; upon whom they themselves lived, and all their posterity and all before them: to these they made their meat and drink offerings.' Then he concludes: 'these were the devices of worship agreeing with the weakness and want of boldness in their minds.'"

Let us suppose Eusebius to have been as weak and credulous as the darkest monk in the darkest age of Europe, a supposition which no man will make who knows any thing of the writings of that eminent historian; what could he see in this senseless jargon, which even a dreaming monk would think of employing in support of Christianity? Eusebius calls it, and calls it truly, direct atheism; but could he imagine that an ancient system of atheism would contribute so much to make the Pagans of his age admit as divine revelations the books of the Old and New Testaments, that he should be induced to adopt, without examination, an impudent forgery, not 200 years old, as genuine remains of the most remote antiquity?

If this Phenician cosmogony be a fabrication of Porphyry, or of the pretended translator, it must surely have been fabricated for some purpose; but it is impossible for us to conceive what purpose either of these writers could have intended to serve by forging a system so extravagantly absurd. Porphyry, though an enemy to the Christians, was not an atheist, and would never have thought of making an atheist of him whom he meant to obtrude upon the world as the rival of Moses. His own principles were those of the Alexandrian Platonists; and had he been the forger of the works which bear the name of Sanchoniatho, instead of the incomprehensible jargon about *dark wind*, *evening chaos*, *Mot*, the *overseers of heaven in the shape of an egg*, and *animation proceeding from the sound of thunder*, we should doubtless have been amused with refined speculations concerning the operations of the *Demiurgus* and the other persons in the Platonic Triad. See PLATONISM and PORPHYRY.

* *Bib. Crit.* vol. i. p. 140.

Father Simon of the oratory imagines * that the purpose for which the history of Sanchoniatho was forged, was to support Paganism, by taking from it its mythology and allegories, which were perpetually objected to it by the Christian writers; but this learned man totally mistakes the matter. The primitive Christians were too much attached to allegories themselves to rest their objections to Paganism on such a foundation: what they objected to that system was, the immoral stories told of the priests. To this the Pagan priests and philosophers replied, that these stories were only *mythologic allegories*, which veiled all the great truths of Theology, Ethics, and Physics. The Christians said, this could not be; for that the stories of the gods had a substantial foundation in fact, these gods being only dead men deified, who, in life, had like passions and infirmities with other mortals. This then was the objection which the forger of the works of Sanchoniatho had to remove, if he really forged them in support of Paganism; but, instead of doing so, he gives the genealogy and history of all the greater gods, and shows, that they were men deified after death for the exploits, some of them grossly immoral, which they had performed in this world. We have elsewhere (POLYTHEISM, N° 17.) given his account of the deification of *Chrysor*, and *Ouranos*, and *Ge*, and *Hypsistos*, and *Muth*; but our readers may not perhaps be ill pleased to accompany him through the history of *Ouranos* and *Cronus*, two of his greatest gods; whence it will appear how little his writings are calculated to support the tottering cause of Paganism against the objections which were then urged to it by the Christian apologists.

"Ouranos (says he), taking the kingdom of his father, married Ge his sister, and by her had four sons; *Ilus*, who is called *Cronus*; *Betylus*; *Dagon*, who is *Siton*, or the *god of corn*; and *Atlas*. But by other wives Ouranos had much issue, wherefore Ge being grieved at it and jealous, reproached Ouranos, so as they parted from each other. But Ouranos, though he parted from her, yet by force invading her, and lying with her when he listed, went away again; and he also attempted to kill the children he had by her. Ge also often defended or avenged herself, gathering auxiliary powers unto her. But when Cronus came to man's age, using Hermes Trismegistus as his counsellor and assistant (for he was his secretary), he opposed his father Ouranos, avenging his mother. But Cronus had children, Persephone and Athena; the former died a virgin, but by the counsel of the latter Athena, and of Hermes, Cronus made of iron a seymitar and a spear. Then Hermes, speaking to the assistants of Cronus with enchanting words, wrought in them a keen desire to fight against Ouranos in the behalf of Ge; and thus Cronus warring against Ouranos, drove him out of his kingdom, and succeeded in the imperial power or office. In the fight was taken a well-beloved concubine of Ouranos big with child. Cronus gave her in marriage to Dagon, and she brought forth at his house what she had in her womb by Ouranos, and called him *Demaroon*. After these things Cronus builds a wall round about his house, and founds *Byblus* the first city in Phenicia. Afterwards Cronus, suspecting his own brother Atlas, with the advice of Hermes, throwing him into a deep hole of the earth, there buried him, and having a son called *Sadid*, he despatched him with his own sword, having a suspicion of him, and deprived his own son of life with his own hand. He also cut off the head of his own daughter, so that all the gods were amazed at the mind of Cronus. But in process of time, Ouranos being in flight, or banishment, sends his daughter Astarte, with two other sisters Rhea and Dione, to cut off

Sanchoniatho.

off Cronus by deceit, whom Cronus taking, made wives of these sisters. Ouranos, understanding this, sent Eimarmene and Hore, Fate and Beauty, with other auxiliaries, to war against him: but Cronus, having gained the affections of these also, kept them with himself. Moreover, the god Ouranos devised *Bætulia*, contriving stones that moved as having life. But Cronus begat on Astarte seven daughters called *Titanides* or *Artemides*; and he begat on Rhea seven sons, the youngest of whom, as soon as he was born, was consecrated a god. Also by Dione he had daughters, and by Astarte moreover two sons, *Pothos* and *Eros*, i. e. Cupid and Love. But Dagon, after he had found out bread corn, and the plough, was called *Zeus Aratrius*. To *Sydyc*, or *the just*, one of the *Titanides* bare *Asclepius*. Cronus had also in *Peræa* three sons, 1. *Cronus* his father's namesake. 2. *Zeus Belus*. 3. *Apollo*."

Is it conceivable, that a writer so acute as Porphyry, or indeed that any man of common sense, either in his age or in that of Philo, would forge a book filled with such stories as these, in order to remove the Christian objections to the immoral characters of the Pagan divinities? The very supposition is impossible to be made. Nor let any one imagine that Sanchoniatho is here writing allegorically, and by his tales of *Ouranos*, and *Ge* and *Cronus*, is only personifying the *heaven*, the *earth*, and *time*. On the contrary, he assures us, that *Ouranos*, or *Epigeus*, or *Autochthon* (for he gives him all these names), was the son of one *Eliaun* or *Hypsistos*, who dwelt about Byblus, and that from him the element which is over us was called *heaven*, on account of its excellent beauty, as the earth was named *Ge* after his sister and wife. And his translator is very angry * with the Neotoric Greeks, as he calls them, because that "by a great deal of force and straining, they laboured to turn all the stories of the gods into allegories and physical discourses." This proves unanswerably, that the author of this book, whoever he was, did not mean to veil the great truths of religion under the cloak of mythologic allegories; and therefore, if it was forged by Porphyry in support of Paganism, the forger so far mistook the state of the question between him and his adversaries, that he contrived a book, which, if admitted to be ancient, totally overthrew his own cause.

* *Apud Euseb. Præp. Evang.* lib. i. cap. 6.

The next thing to be inquired into with respect to Sanchoniatho is his antiquity. Did he really live and write at so early a period as Porphyry and Philo pretend? We think he did not; and what contributes not a little to confirm us in our opinion, is that mark of national vanity and partiality, common to after-times, in making the sacred mysteries of his own country original, and conveyed from Phenicia into Egypt. This, however, furnishes an additional proof that Porphyry was not the forger of the work; for he well knew that the mysteries had their origin in Egypt (see MYSTERIES), and would not have fallen into such a blunder. He is guilty, indeed, of a very great anachronism, when he makes Sanchoniatho contemporary with Semiramis, and yet pretends that what he writes of the Jews is compiled from the records of Hierombalus the priest of the god Jao; for Bochart has made it appear in the highest degree probable, † that *Hierombalus* or *Jeromb-baal* is the *Jerub-baal* or *Gideon* of Scripture.

† *Geogr. Sac.* p. 2. book 2. lib. 2. cap. 17.

Between the reign of Semiramis and the Trojan war a period elapsed of near 800 years, whereas Gideon flourished not above seventy years before the destruction of Troy. But supposing Sanchoniatho to have really consulted the records of Gideon, it by no means follows that he flourished at the same period with that judge of Israel. He speaks of the building of Tyre as an ancient thing, while our best chronologers ‡ place it in the time of Gideon. Indeed, were we certain that any writings had been left by that holy man, we should be obliged to conclude, that a large tract of time had intervened between the death of their author and their falling into the hands of Sanchoniatho; for, surely, they could not, in a short period, have been so completely corrupted as to give any countenance to his impious absurdities. His atheistic cosmogony he does not indeed pretend to have got from the annals of the priest of Jao, but from records which were deposited in his own town of Berytus by Thoth a Phenician philosopher, who was afterwards made king of Egypt. But surely the annals of Gideon, if written by himself, and preserved pure to the days of Sanchoniatho, must have contained so many truths of the Mosaic religion, as must have prevented any man of sense from adopting so impossible a theory as Thoth's, though sanctioned by the greatest name of profane antiquity. Stillingfleet indeed thinks it most probable that Sanchoniatho became acquainted with the most remarkable passages of the life of Jerub-baal from annals written by a Phenician pen. He observes, that immediately after the death of Gideon, the Israelites, with their usual proneness to idolatry, worshipped *Baal-berith*, or the idol of Berytus, the town in which Sanchoniatho lived; and from this circumstance he concludes that there must have been such an intercourse between the Hebrews and Berytians, that in process of time the latter people might assume to themselves the Jerub-baal of the former, and hand down his actions to posterity as those of a priest instead of a great commander. All this may be true; but if so, it amounts to a demonstration that the antiquity of Sanchoniatho is not so high by many ages as that which is claimed for him by Philo and Porphyry, though he may still be more ancient, as we think Vossius has proved him to be, * than any other profane historian whose writings have come down to us either entire or in fragments.

‡ *Scaliger.*

* *De Hist. Græc.* lib. i. cap. 1.

But granting the authenticity of Sanchoniatho's history, what, it may be asked, is the value of his fragments, that we should be at any trouble to ascertain whether they be genuine remains of high antiquity, or the forgeries of a modern impostor? We answer, with the illustrious Stillingfleet, that though these fragments contain such absurdities as it would be a disgrace to reason to suppose credible; though the whole cosmogony is the grossest sink of atheism; and though many persons make a figure in the history, whose very existence may well be doubted; yet we, who have in our hands the light of divine revelation, may in this dungeon discover many excellent relics of ancient tradition, which throw no feeble light upon many passages of holy scripture, as they give us the origin and progress of that idolatry which was so long the opprobrium of human nature. They furnish too a complete refutation of the extravagant chronology of the Chaldeans and Egyptians, and show, if they be genuine, that the world is indeed not older than it is said to be by Moses. We shall conclude the article by earnestly recommending to our readers

readers an attentive perusal of *Cumberland's* SANCHONIATHO.

SANCROFT, WILLIAM, archbishop of Canterbury, was born at Fresingfield in Suffolk in 1616; and admitted into Emanuel college, Cambridge, in 1633. In 1642 he was elected a fellow; and, for refusing to take the covenant, was ejected from his fellowship. In 1660 he was chosen one of the university preachers; and in 1663 was nominated to the deanry of York. In 1664 he was installed dean of St Paul's. In this station he set himself with unwearied diligence to repair the cathedral, till the fire of London in 1666 employed his thoughts on the more noble undertaking of rebuilding it, toward which he gave 1400*l*. He also rebuilt the deanry, and improved its revenue. In 1668 he was admitted archdeacon of Canterbury, on the king's presentation. In 1677, being now prolocutor of the convocation, he was unexpectedly advanced to the archbishopric of Canterbury. In 1687 he was committed to the Tower, with six other bishops, for presenting a petition to the king against reading the declaration of indulgence. Upon King James II.'s withdrawing himself, he concurred with the lords in a declaration to the prince of Orange for a free parliament, and due indulgence to the Protestant dissenters. But when that prince and his consort were declared king and queen, his grace refusing to take the oath to their majesties, he was suspended and deprived.—He lived in a very private manner till his death in 1693. His learning, integrity, and piety, made him an exalted ornament of the church. He published a volume in 12mo, entitled Modern Politics, taken from Machiavel, Borgia, and other select authors; Familiar Letters to Mr North, an 8vo pamphlet; and three of his sermons were printed together after his death.

SANCTIFICATION, the act of sanctifying, or rendering a thing holy. The reformed divines define sanctification to be an act of God's grace, by which a person's desires and affections are alienated from the world; and by which he is made to die to sin, and to live to righteousness; or, in other words, to feel an abhorrence of all vice, and a love of religion and virtue.

SANCTION, the authority given to a judicial act, by which it becomes legal and authentic.

SANCTORIUS, or SANCTORIO, a most ingenious and learned physician, was professor in the university of Padua, in the beginning of the 17th century. He contrived a kind of statical chair, by means of which, after estimating the aliments received, and the sensible discharges, he was enabled to determine with great exactness the quantity of insensible perspiration, as well as what kind of victuals and drink increased or diminished it. On these experiments he erected a curious system, which he published under the title of *De Medicina Statica;* which is translated into English by Dr Quincy. Sanctorius published several other treatises, which showed great abilities and learning.

SANCTUARY, among the Jews, also called *Sanctum sanctorum*, or *Holy of holies*, was the holiest and most retired part of the temple of Jerusalem, in which the ark of the covenant was preserved, and into which none but the high-priest was allowed to enter, and that only once a year, to intercede for the people.

Some distinguish the sanctuary from the sanctum sanctorum, and maintain that the whole temple was called the *sanctuary*.

To try and examine any thing by the weight of the sanctuary, is to examine it by a just and equal scale; because, among the Jews, it was the custom of the priests to keep stone weights, to serve as standards for regulating all weights by, though these were not at all different from the royal or profane weights.

SANCTUARY, in the Romish church, is also used for that part of the church in which the altar is placed, encompassed with a rail or ballustrade.

SANCTUARY, in our ancient customs, the same with ASYLUM.

SAND, in *Natural History*, properly denotes small particles of siliceous stones. Sands are subject to be variously blended, both with different substances, as that of talcs, &c.; and hence, as well as from their various colours, are subdivided into, 1. White sands, whether pure or mixed with other arenaceous or heterogeneous particles; of all which there are several kinds, differing no less in the fineness of their particles than in the different degrees of colour, from a bright and shining white, to a brownish, yellowish, greenish, &c. white. 2. The red and reddish sands, both pure and impure. 3. The yellow sands, whether pure or mixed, are also very numerous. 4. The brown sands, distinguished in the same manner. 5. The black sands, of which there are only two varieties, viz. a fine shining grayish-black sand, and another of a fine shining reddish-black colour. 6. The green kind; of which there is only one known species, viz. a coarse variegated dusky green sand, common in Virginia.

Sand is of great use in the glass manufacture; a white kind of sand being employed for making of the white glass, and a coarse greenish-looking sand for the green glass.

In agriculture it seems to be the office of sand to render unctuous or clayey earths fertile, and fit to support vegetables, by making them more open and loose.

SAND-Bags, in the art of war. See *SACKS of Earth*.

Sand-EEL. See AMMODYTES, ICHTHYOLOGY *Index*.

SAND-Floods, a name given to the motion of sand so common in the deserts of Arabia. Mr Bruce gives the following accurate description of some that he saw in travelling through that long and dreary desert. "At one o'clock (says he) we alighted among some acacia trees at Waadi el Halboub, having gone twenty-one miles. We were here at once surprised and terrified by a sight surely one of the most magnificent in the world. In that vast expanse of desert from west and to north-west of us, we saw a number of prodigious pillars of sand at different distances, at times moving with great celerity, at others stalking on with a majestic slowness: at intervals we thought they were coming in a few minutes to overwhelm us; and small quantities of sand did actually more than once reach us. Again they would retreat so as to be almost out of sight, their tops reaching to the very clouds. There the tops often separated from the bodies; and these, once disjoined, dispersed in the air, and did not appear more. Sometimes they were broken near the middle, as if struck with a large cannon shot. About noon they began to advance with considerable swiftness upon us, the wind being very strong

strong at north. Eleven of them ranged alongside of us about the distance of three miles. The greatest diameter of the largest appeared to me at that distance as if it would measure ten feet. They retired from us with a wind at south-east, leaving an impression upon my mind to which I can give no name, though surely one ingredient in it was fear, with a considerable deal of wonder and astonishment. It was in vain to think of flying, the swiftest horse or fastest sailing ship could be of no use to carry us out of this danger; and the full persuasion of this rivetted me as if to the spot where I stood, and let the camels gain on me so much in my state of lameness, that it was with some difficulty I could overtake them."—

"The same appearance of moving pillars of sand presented themselves to us this day, in form and disposition like those we had seen at Waadi Halboub, only they seemed to be more in number and less in size. They came several times in a direction close upon us, that is, I believe, within less than two miles. They began immediately after sunrise, like a thick wood, and almost darkened the sun: his rays shining through them for near an hour, gave them an appearance of pillars of fire. Our people now became desperate: the Greek shrieked out, and said it was the day of judgment; Ismael pronounced it to be hell; and the Tucorories, that the world was on fire. I asked Idris, if ever he had before seen such a sight? He said he had often seen them as terrible, though never worse; but what he feared most was that extreme redness in the air, which was a sure presage of the coming of the simoom." See SIMOOM.

The flowing of sand, though far from being so tremendous and hurtful as in Arabia, is of very bad consequences in this country, as many valuable pieces of land have thus been entirely lost; of which we give the following instances from Mr Pennant, together with a probable means of preventing them in future. "I have more than once (says he), on the eastern coasts of Scotland, observed the calamitous state of several extensive tracts, formerly in a most flourishing condition, at present covered with sands, unstable as those of the deserts of Arabia. The parish of Furvie, in the county of Aberdeen, is now reduced to two farms, and above 500*l.* a year lost to the Errol family, as appears by the oath of the factor in 1600, made before the court of session, to ascertain the minister's salary. Not a vestige is to be seen of any buildings, unless a fragment of the church.

"The estate of Couhin, near Forres, is another melancholy instance. This tract was once worth 300*l.* a year, at this time overwhelmed with sand. This strange inundation was still in motion in 1769, chiefly when a strong wind prevailed. Its motion is so rapid, that I have been assured, that an apple-tree has been so covered with it in one season, that only the very summit appeared. This distress was brought on about ninety years ago, and was occasioned by the cutting down some trees, and pulling up the bent or star which grew on the sand hills; which at last gave rise to the act of 15 George III. c. 33. to prohibit the destruction of this useful plant.

"I beg leave to suggest to the public a possible means of putting a stop to these destructive ravages. Providence hath kindly formed this plant to grow only in pure sand. Mankind was left to make, in after-times, an application of it suitable to their wants. The sand-hills, on a portion of the Flintshire shores, in the parish of Llanasa, are covered with it naturally, and kept firm in their place. The Dutch perhaps owe the existence of part at least of their country to the sowing of it on the *mobile solum*, their sand-banks.

"My humane and amiable friend, the late Benjamin Stillingfleet, Esq. recommended the sowing of this plant on the sandy wilds of Norfolk, that its matted roots migh prevent the deluges of sand which that country experiences. It has been already remarked, that wheresoever this plant grows, the salutary effects are soon observed to follow. A single plant will fix the sand, and gather it into a hillock; these hillocks, by the increase of vegetation, are formed into larger, till by degrees a barrier is made often against the encroachments of the sea; and might as often prove preventive of the calamity in question. I cannot, therefore, but recommend the trial to the inhabitants of many parts of North Britain. The plant grows in most places near the sea, and is known to the Highlanders by the name of *murah*; to the English by that of *bent-star, mat grass*, or *marram*. Linnæus calls it *arundo arenaria*. The Dutch call it *helm*. This plant hath stiff and sharp-pointed leaves, growing like a rush, a foot and a half long: the roots both creep and penetrate deeply into their sandy beds: the stalk bears an ear five or six inches long, not unlike rye; the seeds are small, brown, and roundish. By good fortune, as old Gerard observes, no cattle will eat or touch this vegetable, allotted for other purposes, subservient to the use of mankind."

SAND-Piper. See TRINGA, ORNITHOLOGY *Index*.

SAND-Stone, a compound stone, of which there are numerous varieties, arising not only from a difference of external appearance, but also in the nature and proportions of the constituent parts. See GEOLOGY *Index*.

There is a singular variety of sand-stone, which consists of small grains of hard quartz which strike fire with steel united with some micaceous particles. This variety is flexible and elastic, the flexibility depending on the micaceous part and softness of the gluten with which the particles are cemented. This elastic stone is brought from Brazil. There are also two tables of white marble, kept in the palace of Borghese at Rome, which have the same property. But the sparry particles of their substance, though transparent, are rather soft, and may be easily separated by the nail. They effervesce with acids, and there is a small mixture of minute particles of talc or mica.

Sand-stones are of great use in buildings which are required to resist air, water, and fire. Some of them are soft in the quarry, but become hard when exposed to the air. The loose ones are most useful, but the solid and hard ones crack in the fire, and take a polish when used as grindstones. Stones of this kind ought therefore to be nicely examined before they are employed for valuable purposes.

SANDAL, in antiquity, a rich kind of slipper worn on the feet by the Greek and Roman ladies, made of gold, silk, or other precious stuff; consisting of a sole, with an hollow at one extreme to embrace the ancle, but leaving the upper part of the foot bare.

SANDAL, is also used for a shoe or slipper worn by the pope and other Romish prelates when they officiate.

Sandal, Sandarach

It is also the name of a sort of slipper worn by several congregations of reformed monks. This last consists of no more than a mere leathern sole, fastened with latches or buckles, all the rest of the foot being left bare. The Capuchins wear sandals; the Recollects, clogs; the former are of leather, and the latter of wood.

Sandal-Wood. See Saunders.

SANDARACH, in *Natural History*, a very beautiful native fossil, though too often confounded with the common factitious red arsenic, and with the red matter formed by melting the common yellow orpiment.

It is a pure substance, of a very even and regular structure, is throughout of that colour which our dyers term an *orange scarlet*, and is considerably transparent even in the thickest pieces. But though, with respect to colour, it has the advantage of cinnabar while in the mass, it is vastly inferior to it when both are reduced to powder. It is moderately hard, and remarkably heavy; and, when exposed to a moderate heat, melts and flows like oil: if set on fire, it burns very briskly.

It is found in Saxony and Bohemia, in the copper and silver mines; and is sold to the painters, who find it a very fine and valuable red: but its virtues or qualities in medicine are no more ascertained at this time than those of the yellow orpiment.

Gum-Sandarach, is a dry hard resin, usually in the form of loose granules, of the size of a pea, a horse-bean, or larger; of a pale whitish, yellow colour, transparent, and of a resinous smell, brittle, very inflammable, of an acrid and aromatic taste, and diffusing a very pleasant smell when burning. It was long the prevailing opinion that this gum was obtained from the *juniperus communis;* but this plant does not grow in Africa, in which country only sandarach is produced; for the gum sandarach of the shops is brought from the southern provinces of the kingdom of Morocco. About six or seven hundred quintals of it are exported every year from Santa Cruz, Mogador, and Saffy. In the language of the country it is called *el grassa*. The tree which produces it is a *Thuia*, found also by M. Vahl in the kingdom of Tunis. It was made known several years ago by Dr Shaw, who named it *Cypressus fructu quadrivalvi, Equiseti instar articulatis;* but neither of these learned men was acquainted with the economical use of this tree; probably because, being not common in the northern part of Barbary, the inhabitants find little advantage in collecting the resin which exudes from it.

M. Schousboe (A), who saw the species of *thuia* in question, says that it does not rise to more than the height of 20 or 30 feet at most, and that the diameter of its trunk does not exceed ten or twelve inches. It distinguishes itself, on the first view, from the two other species of the same genus, cultivated in gardens, by having a very distinct trunk, and the figure of a real tree; whereas in the latter the branches rise from the root, which gives them the appearance rather of bushes. Its branches also are more articulated and brittle. Its flowers, which are not very apparent, show themselves in April; and the fruit, which are of a spherical form, ripen in September. When a branch of this tree is held to the light, it appears to be interspersed with a multitude of transparent vesicles which contain the resin. When these vesicles burst in the summer months, a resinous juice exudes from the trunk and branches, as is the case in other coniferous trees. This resin is the sandarach, which is collected by the inhabitants of the country, and carried to the ports, from which it is transported to Europe. It is employed in making some kinds of sealing-wax, and in different sorts of varnish. In 1793 a hundred weight of it cost in Morocco from 13 to 13½ piastres, which make from about 3*l.* 5s. to 3*l.* 7s. 6d. sterling. The duty on exportation was about 7s. 6d. sterling per quintal.

Sandarach, to be good, must be of a bright yellow colour, pure and transparent. It is an article very difficult to be adulterated. Care, however, must be taken, that the Moors do not mix with it too much sand. It is probable that a tree of the same kind produces the gum sandarach of Senegal, which is exported in pretty considerable quantities.

Pounded Sandarach. See Pounce.

Sandarach || Sandemanians.

SANDEMANIANS, in ecclesiastical history, a modern sect that originated in Scotland about the year 1728; where it is at this time distinguished by the name of *Glassites*, after its founder Mr John Glass, who was a minister of the established church in that kingdom; but being charged with a design of subverting the national covenant, and sapping the foundation of all national establishments by the kirk judicatory; was expelled by the synod from the church of Scotland. His sentiments are fully explained in a tract published at that time, intitled, "The Testimony of the King of Martyrs," and preserved in the first volume of his works. In consequence of Mr Glass's expulsion, his adherents formed themselves into churches, conformable in their institution and discipline to what they apprehended to be the plan of the first churches recorded in the New Testament. Soon after the year 1755, Mr Robert Sandeman, an elder in one of these churches in Scotland, published a series of letters addressed to Mr Hervey, occasioned by his Theron and Aspasio; in which he endeavours to show, that his notion of faith is contradictory to the scripture account of it, and could only serve to lead men, professedly holding the doctrines commonly called *Calvinistic*, to establish their own righteousness upon their frames, inward feelings, and various acts of faith. In these letters Mr Sandeman attempts to prove, that faith is neither more nor less than a simple assent to the divine testimony concerning Jesus Christ, recorded in the New Testament; and he maintains, that the word *faith*, or *belief*, is constantly used by the apostles to signify what is denoted by it in common discourse, viz. a persuasion of the truth of any proposition, and that there is no difference between believing any common testimony, and believing the apostolic testimony, except that which results from the nature of the testimony itself. This led the way to a controversy among those who were called *Calvinists*, concerning the nature of justifying faith; and those who adopted Mr Sandeman's notion

(A) *Phys. Med. and Econom. Library*, (a Danish Journal) for 1799.

tion of it, and who took the denomination of *Sandemanians*, formed themselves into church order, in strict fellowship with the churches in Scotland, but holding no kind of communion with other churches. The chief opinions and practices in which this sect differs from other Christians, are, their weekly administration of the Lord's Supper; their love-feasts, of which every member is not only allowed but required to partake, and which consist of their dining together at each other's houses in the interval between the morning and afternoon service; their kiss of charity used on this occasion, at the admission of a new member, and at other times, when they deem it to be necessary or proper; their weekly collection before the Lord's Supper, for the support of the poor, and defraying other expenses; mutual exhortation; abstinence from blood and things strangled; washing each other's feet, the precept concerning which, as well as other precepts, they understand literally; community of goods, so far as that every one is to consider all that he has in his possession and power as liable to the calls of the poor and church; and the unlawfulness of laying up treasures on earth, by setting them apart for any distant, future, and uncertain use. They allow of public and private diversions, so far as they are not connected with circumstances really sinful; but apprehending a lot to be sacred, disapprove of playing at cards, dice, &c. They maintain a plurality of elders, pastors, or bishops, in each church; and the necessity of the presence of two elders in every act of discipline, and at the administration of the Lord's Supper. In the choice of these elders, want of learning, and engagements in trade, &c. are no sufficient objection; but second marriages disqualify for the office; and they are ordained by prayer and fasting, imposition of hands, and giving the right hand of fellowship. In their discipline they are strict and severe; and think themselves obliged to separate from the communion and worship of all such religious societies as appear to them not to profess the simple truth for their only ground of hope, and who do not walk in obedience to it. We shall only add, that in every church transaction, they esteem unanimity to be absolutely necessary. From this abstract of the account which they have published of their tenets and practices, it does not seem to be probable that their number should be very considerable.

SANDERS, a dye wood. See SAUNDERS.

SANDIVER, an old name for a whitish substance which is thrown up from the *metal*, as it is called, of which glass is made; and, swimming on its surface, is skimmed off.

Sandiver is also plentifully ejected from volcanoes; some is of a fine white, and others tinged bluish or yellow.

Sandiver is said to be detergent, and good for foulnesses of the skin. It is also used by gilders of iron.

SANDIX, a kind of minium, or red lead, made of ceruse, but much inferior to the true minium.

SANDOMIR, a city, the capital of a palatinate of the same name, in Austrian Poland, on the Vistula. The Swedes blew up the castle in 1656; and here, in 1659, was a dreadful battle between the Tartars and Russians. It is 84 miles south east of Cracow. Lat. 49. 26. Long. 20. 10.

SANDORICUM, a genus of plants belonging to the decandria class; and in the natural method ranking under the 23d order, *Trihilatæ*. See BOTANY *Index*.

SANDPU, or SANPOO, the vulgar name of a river in the East Indies, which is one of the largest in the world; but it is better known by that of *Burrampooter*. Of this most majestic body of waters we have the following very animated account in Maurice's Indian Antiquities. "An object equally novel and grand now claims our attention; so novel, as not to have been known to Europeans in the real extent of its magnificence before the year 1765, and so awfully grand, that the astonished geographer, thinking the language of prose inadequate to convey his conception, has had recourse to the more expressive and energetic language of poetry: but

———scarce the Muse herself
Dares stretch her wing o'er this enormous mass
Of rushing waters; to whose dread expanse,
Continuous depth, and wond'rous length of course,
Our floods are rills.

"This stupendous object is the Burrampooter, a word which in Shanscrit signifies *the son of Brahma*; for no meaner origin could be assigned to so wonderful a progeny. This supreme monarch of Indian rivers derives its source from the opposite side of the same mountain from which the Ganges springs, and taking a bold sweep towards the east, in a line directly opposite to the course of that river, washes the vast country of Tibet, where, by way of distinction, it is denominated *Sanpoo*, or *the river*. Winding with a rapid current through Tibet, and, for many a league, amidst dreary deserts and regions remote from the habitations of men, it waters the borders of the territory of Lassa, the residence of the grand Lama; and then deviating with a cometary irregularity, from an east to a south-east course, the *mighty wanderer* approaches within 200 miles of the western frontiers of the vast empire of China. From this point its more direct path to the ocean lay through the gulf of Siam; but with a desultory course peculiar to itself, it suddenly turns to the west through Assam, and enters Bengal on the north-east quarter. Circling round the western point of the Garrow mountains, the Burrampooter now takes a southern direction; and for 60 miles before it meets the Ganges, its sister in point of origin, but not its rival in point of magnitude, glides majestically along in a stream which is regularly from four to five miles wide, and, but for its freshness, Mr Rennel says, might pass for an arm of the sea. About 40 miles from the ocean these mighty rivers unite their streams; but that gentleman is of opinion that their junction was formerly higher up, and that the accumulation of two such vast bodies of water, scooped out the amazing bed of the Megna lake. Their present conflux is below Luckipoor; and by that confluence a body of fresh running water is produced, hardly equalled, and not exceeded, either in the old or the new hemisphere. So stupendous is that body of water, that it has formed a gulf of such extent as to contain islands that rival our Isle of Wight in size and fertility; and with such resistless violence does it rush into the ocean, that in the rainy season the sea itself, or at least its surface, is perfectly fresh for many leagues out."

SANDS, GOODWIN, or *Godwin*, are dangerous sand banks

Sands, Sandwich.

banks lying off the coast of Kent in England. See KENT.

SANDWICH, a town of Kent, and one of the cinque ports, having the title of an earldom. It consisted of 1398 houses in 1801, most of them old, and built with wood, though there are a few new ones built with brick and flints. The town is walled round, and also fortified with ditches and ramparts; but the walls are much decayed, on account of the harbour being so choked up with sand that a ship of 100 tons burthen cannot get in. The number of inhabitants, according to the census of 1801, was 6506; but in the census for 1811, the number given is 2735, which is probably an error. E. Long. 1. 20. N. Lat. 51. 20.

SANDWICH Islands, a group of islands in the South sea, lying near New Ireland, were among the last discoveries of Captain Cook, who so named them in honour of the earl of Sandwich, under whose administration these discoveries were made. They consist of 11 islands, extending in latitude from 18. 54. to 22. 15. N. and in longitude from 150. 54. to 160. 24. W. They are called by the natives OWHYHEE, MOWEE, RANAI, *Morotoi*, TAHOOROWA, WOAHOO, ATOOI, *Neeheehow*, *Oreehoua*, *Morotinne*, and TAHOORA, all inhabited except the two last. An account of the most remarkable of which will be found in their alphabetical order, in their proper places in this work. The climate of these islands differs very little from that of the West Indies in the same latitude, though perhaps more temperate; and there are no traces of those violent winds and hurricanes, which render the stormy months in the West Indies so dreadful. There is also more rain at the Sandwich isles, where the mountainous parts being generally enveloped in a cloud, successive showers fall in the inland parts, with fine weather, and a clear sky, on the sea shore. Hence it is, that few of those inconveniences, to which many tropical countries are subject, either from heat or moisture, are experienced here. The winds, in the winter months, are generally from east-south-east to north-east. The vegetable productions are nearly the same as those of the other islands in this ocean; but the taro root is here of a superior quality. The bread-fruit trees thrive not in such abundance as in the rich plains of Otaheite, but produce double the quantity of fruit. The sugar-canes are of a very unusual size, some of them measuring 11 inches and a quarter in circumference, and having 14 feet eatable. There is also a root of a brown colour, shaped like a yam, and from six to ten pounds in weight, the juice of which is very sweet, of a pleasant taste, and is an excellent substitute for sugar. The quadrupeds are confined to the three usual sorts, hogs, dogs, and rats. The fowls are also of the common sort; and the birds are beautiful and numerous, though not various. Goats, pigs, and European seeds, were left by Captain Cook; but the possession of the goats soon gave rise to a contest between two districts, in which the breed was entirely destroyed. The inhabitants are undoubtedly of the same race that possesses the islands south of the equator; and in their persons, language, customs, and manners, approach nearer to the New Zealanders than to their less distant neighbours, either of the Society or Friendly Islands. They are in general about the middle size, and well made; they walk very gracefully, run nimbly, and are capable of bearing very great fatigue. Many of both sexes have fine open countenances; and the women in particular have good eyes and teeth, with a sweetness and sensibility of look, that render them very engaging. There is one peculiarity, characteristic of every part of these islands, that even in the handsomest faces there is a fulness of the nostril, without any flatness or spreading of the nose. They suffer their beards to grow, and wear their hair after various fashions. The dress of both men and women nearly resemble those of New Zealand, and both sexes wear necklaces of small variegated shells. Tattowing the body is practised by every colony of this nation. The hands and arms of the women are also very neatly marked, and they have the singular custom of tattowing the tip of the tongue. Like the New Zealanders, they have adopted the method of living together in villages, containing from 100 to 200 houses, built pretty closely together, without any order, and having a winding path between them. They are generally flanked, towards the sea, with detached walls, which are meant both for shelter and defence. These walls consist of loose stones, and the inabitants are very dexterous in shifting them suddenly to such places as the direction of the attack may require. In the sides of the hills, or surrounding eminences, they have also little holes, or caves, the entrance to which is also secured by a fence of the same kind. They serve for places of retreat in cases of extremity, and may be defended by a single person against several assailants. Their houses are of different sizes, some of them being large and commodious, from 40 to 50 feet long, and from 20 to 30 broad; while others are mere hovels. The food of the lower class consists principally of fish and vegetables, to which the people of higher rank add the flesh of dogs and hogs. The manner of spending their time admits of little variety. They rise with the sun, and, after enjoying the cool of the evening, retire to rest, a few hours after sunset. The making of canoes, mats, &c. forms the occupations of the men; the women are employed in manufacturing cloth, and the servants are principally engaged in the plantations and fishing. Their idle hours are filled up with various amusements, such as dancing, boxing, wrestling, &c. Their agriculture and navigation bear a great resemblance to those of the South-sea islands. Their plantations, which are spread over the whole sea-coast, consist of the taro, or eddy-root, and sweet potatoes, with plants of the cloth-trees set in rows. The bottoms of their canoes are of a single piece of wood, hollowed out to the thickness of an inch, and brought to a point at each end. The sides consist of three boards, each about an inch thick, neatly fitted and lashed to the bottom part. Some of their double canoes measure 70 feet in length, three and a half in depth, and twelve in breadth. Their cordage, fish-hooks, and fishing-tackle, differ but little from those of the other islands. Among their arts must not be forgotten that of making salt, which they have in great abundance, and of a good quality. Their instruments of war are spears, daggers, clubs, and slings; and for defensive armour they wear strong mats, which are not easily penetrated by such weapons as theirs. As the islands are not united under one sovereign, wars are frequent among them, which, no doubt, contribute greatly to reduce the number of inhabitants, which, according to the proportion assigned to each island, does not exceed 400,000. The same system of subordination prevails here

here as at the other islands, the same absolute authority on the part of the chiefs, and the same unresisting submission on the part of the people. The government is likewise monarchical and hereditary. At Owhyhee there is a regular society of priests living by themselves, and distinct in all respects from the rest of the people. Human sacrifices are here frequent; not only at the commencement of a war, or any signal enterprise, but the death of every considerable chief calls for a repetition of these horrid rites. Notwithstanding the irreparable loss in the death of Captain Cook, who was here murdered through sudden resentment and violence, they are acknowledged to be of the most mild and affectionate disposition. They live in the utmost harmony and friendship with each other; and in hospitality to strangers they are not exceeded even by the inhabitants of the Friendly Islands. Their natural capacity seems, in no respect, below the common standard of mankind; and their improvements in agriculture, and the perfection of their manufactures, are certainly adequate to the circumstances of their situation, and the natural advantages which they enjoy.

SANDYS, Sir Edwin, second son of Dr Edwin Sandys, archbishop of York, was born about 1561, and educated at Oxford under Mr Richard Hooker, author of the Ecclesiastical Polity. In 1581 he was collated to a prebend in the cathedral of York. He travelled into foreign countries; and, upon his return, grew famous for learning, prudence, and virtue. While he was at Paris, he drew up a tract, published under the title of *Europæ Speculum*. In 1602, he resigned his prebend; and, the year following, was knighted by King James I., who employed him in several important affairs. He was dexterous in any great employment, and a good patriot. However, opposing the court with vigour in the parliament field in 1621, he, with Mr Selden, was committed to custody for a month. He died in 1629, having bequeathed 1500*l.* to the university of Oxford, for the endowment of a metaphysical lecture.

Sandys, *George*, brother of the foregoing Sir Edwin, and youngest son of Archbishop Sandys, was born in 1577. He was a very accomplished man; travelled over several parts of Europe and the East; and published a relation of his journey in folio, in 1615. He made an elegant translation of Ovid's Metamorphoses; and composed some poetical pieces of his own, that were greatly admired in the times of their being written. He also paraphrased the Psalms; and has left behind him a Translation, with notes, of one Sacred Drama, written originally by Grotius, under the title of *Christus Patiens;* on which, and *Adamus Exul*, and *Masenius*, is founded Lander's impudent charge of plagiarism against our immortal Milton. Our author became one of the privy chamber to Charles I., and died in 1643.

SAN Fernando, near the entrance of the Golfo Dolce, in the Bay of Honduras, in 15 degrees 18 minutes north latitude, has lately been fortified by the Spaniards, for the purpose of checking the Musquito-men, logwood-cutters, and bay-men. It is a very good harbour, with safe anchorage from the north and east winds, in eight fathoms water.

SANGUIFICATION, in the animal œconomy, the conversion of the chyle into true blood. See Blood.

SANGUINARIA, Blood-wort, a genus of plants belonging to the polyandria class, and in the natural method ranking under the 27th order, *Rhœadeæ*. See Botany *Index*. The Indians paint themselves yellow with the juice of these plants.

SANGUISORBA, Greater wild Burnet, a genus of plants, belonging to the tetrandria class, and in the natural method ranking under the 54th order, *Miscellaneæ*. See Botany *Index*. The cultivation of this plant has been greatly recommended as food for cattle. See Burnet, Agriculture *Index*.

SANHEDRIM, or Sanhedrin, from the Greek word Συνεδριον, which signifies a council or assembly of persons sitting together, was the name whereby the Jews called the great council of the nation, assembled in an apartment of the temple of Jerusalem to determine the most important affairs both of their church and state. This council consisted of seventy senators. The room they met in was a rotunda, half of which was built without the temple, and half within; that is, one semicircle was within the compass of the temple; the other semicircle, they tell us, was built without, for the senators to sit in; it being unlawful for any one to sit down in the temple. The Nasi, or prince of the sanhedrim, sat upon a throne at the end of the hall, having his deputy at his right hand, and his sub-deputy on his left. The other senators were ranged in order on each side.

The rabbins pretend, that the sanhedrim has always subsisted in their nation from the time of Moses down to the destruction of the temple by the Romans. They date the establishment of it from what happened in the wilderness, some time after the people departed from Sinai (Numb. xi. 16.), in the year of the world 2514. Moses, being discouraged by the continual murmurings of the Israelites, addressed himself to God, and desired to be relieved, at least, from some part of the burden of the government. Then the Lord said to him, "Gather unto me 70 men of the elders of Israel, whom thou knowest to be the elders of the people, and officers over them; and bring them unto the tabernacle of the congregation, that they may stand there with thee: And I will come down and talk with thee there; and I will take of the spirit which is upon thee, and will put it upon them; and they shall bear the burden of the people with thee, that thou bear it not thyself alone." The Lord, therefore, poured out his spirit upon these men, who began at that time to prophesy, and have not ceased from that time. The sanhedrim was composed of 70 counsellors, or rather 72, six out of each tribe; and Moses, as president, made up the number 73. To prove the uninterrupted succession of the judges of the sanhedrim, there is nothing unattempted by the partisans of this opinion. They find a proof where others cannot so much as perceive any appearance or shadow of it. Grotius may be consulted in many places of his commentaries, and in his first book *De jure belli et pacis*, c. 3. art. 20. and *Selden de Synedriis veterum Hebræorum*. Also, Calmet's Dissertation concerning the polity of the ancient Hebrews, printed before his Comment upon the Book of Numbers.

As to the personal qualifications of the judges of this bench, their birth was to be untainted. They were often taken from the race of the priests or Levites, or out of the number of the inferior judges, or from the lesser

Sanhedrim. lesser sanhedrim, which consisted only of 23 judges.— They were to be skilful in the law, as well traditional as written. They were obliged to study magic, divination, fortune-telling, physic, astrology, arithmetic, and languages. The Jews say, they were to know to the number of 70 tongues; that is, they were to know all the tongues, for the Hebrews acknowledged but 70 in all, and perhaps this is too great a number. Eunuchs were excluded from the sanhedrim becsuse of their cruelty, usurers, decrepid persons, players at games of chance, such as had any bodily deformities, those that had brought up pigeons to decoy others to their pigeon-houses, and those that made a gain of their fruits in the sabbatical year. Some also exclude the high-priest and the king, because of their too great power; but others will have it, that the kings always presided in the sanhedrim, while there were any kings in Israel.— Lastly, it was required, that the members of the sanhedrim should be of a mature age, a handsome person, and of considerable fortune. We speak now, according to the notions of the rabbins, without pretending to warrant their opinions.

The authority of the great sanhedrim was vastly extensive. This council decided such causes as were brought before it by way of appeal from the inferior courts. The king, the high-priest, the prophets, were under its jurisdiction. If the king offended against the law; for example, if he married above 18 wives, if he kept too many horses, if he hoarded up too much gold and silver, the sanhedrim had him stripped and whipped in their presence. But whipping, they say, among the Hebrews was not at all ignominious; and the king bore this correction by way of penance, and himself made choice of the person that was to exercise this discipline over him. Also the general affairs of the nation were brought before the sanhedrim. The right of judging in capital cases belonged to this court, and this sentence could not be pronounced in any other place, but in the hall called *Laschat-haggazith*, or the *hall paved with stones*, supposed by some to be the Λιθοστρωτος, or *pavement*, mentioned in John xix. 13. From whence it came to pass, that the Jews were forced to quit this hall when the power of life and death was taken out of their hands, 40 years before the destruction of their temple, and three years before the death of Jesus Christ. In the time of Moses this council was held at the door of the tabernacle of the testimony. As soon as the people were in possession of the land of promise, the sanhedrim followed the tabernacle. It was kept successively at Gilgal, at Shiloh, at Kirjath-jearim, at Nob, at Gibeon in the house of Obed-edom; and, lastly, it was settled at Jerusalem, till the Babylonish captivity. During the captivity it was kept up at Babylon. After the return from Babylon, it continued at Jerusalem to the time of the Sicarii, or Assassins. Then finding that these profligate wretches, whose number increased every day, sometimes escaped punishment by favour of the president or judges, it was removed to Hanoth, which were certain abodes situated, as the rabbins tell us, upon the mountain of the temple. From thence they came down into the city of Jerusalem, withdrawing themselves by degrees from the temple. Afterwards they removed to Jamia, thence to Jericho, to Uzzah, to Sepharvaim, to Bethsanim, to Sephoris, last of all to Tiberias, where they continued to the time of their utter extinction. And this is the account the Jews themselves give us of the sanhedrim.

But the learned do not agree with them in all this. Father Petau fixes the beginning of the sanhedrim not till Gabinius was governor of Judea, who, according to Josephus, erected tribunals in the five principal cities of Judea; at Jerusalem, at Gadara, at Amathus, at Jericho, and at Sephora or Sephoris, a city of Galilee. Grotius places the origin of the sanhedrim under Moses, as the rabbins do; but he makes it determine at the beginning of Herod's reign. Mr Basnage at first thought that the sanhedrim began under Gabinius; but afterwards he places it under Judas Maccabæus, or under his brother Jonathan. We see, indeed, under Jonathan Maccabæus, (1 Macc. xii. 6.), in the year 3860, that the senate with the high-priest sent an embassy to the Romans. The Rabbins say, that Alexander Jannæus, king of the Jews, of the race of the Asmonæans, appeared before the sanhedrim, and claimed a right of sitting there, whether the senators would or not. Josephus informs us, that when Herod was but yet governor of Galilee, he was summoned before the senate, where he appeared. It must be therefore acknowledged, that the sanhedrim was in being before the reign of Herod. It was in being afterwards, as we find from the Gospel and from the Acts. Jesus Christ in St Matthew (v. 22.) distinguishes two tribunals.— "Whosoever is angry with his brother without a cause shall be in danger of the judgment;" this, they say, is the tribunal of the 23 judges. "And whosoever shall say to his brother Raca, shall be in danger of the council;" that is, of the great sanhedrim, which had the right of life and death, at least generally, and before this right was taken away by the Romans. Some think that the jurisdiction of the council of 23 extended to life and death also; but it is certain that the sanhedrim was superior to this council. See also Mark xiii. 9. xiv. 55. xv. 1.; Luke xxii. 52, 66.; John xi. 47.; Acts iv. 15. v. 21. where mention is made of the syncdrion or sanhedrim.

From all this it may be concluded, that the origin of the sanhedrim is involved in uncertainty; for the council of the 70 elders established by Moses was not what the Hebrews understand by the name of sanhedrim. Besides, we cannot perceive that this establishment subsisted either under Joshua, the judges, or the kings. We find nothing of it after the captivity, till the time of Jonathan Maccabæus. The tribunals erected by Gabinius were very different from the sanhedrim, which was the supreme court of judicature, and fixed at Jerusalem; whereas Gabinius established five at five different cities. Lastly, It is certain that this senate was in being in the time of Jesus Christ; but the Jews themselves inform us that they had no longer then the power of life and death (John xviii. 31.)

Sanhedrim, Sanjacks.

SANJACKS, a people inhabiting the Curdistan, or Persian mountains, subsisting chiefly by plunder, and the scanty pittance afforded by their own mountainous country. "They were much reduced (says Mr Ives) by the late bashaw Achmet of Bagdad, who pursued them in person to their subterranean retreats, and destroyed many by the sword, and carried off great numbers of prisoners, who were sold for slaves." Notwithstanding this check, in the year 1758, they again became so daring that they would attack caravans of 700 men,

Sanjacks. || Santa Cruz.

men, and sometimes carry all off. They are said to be worshippers of the evil principle.

SAN JUAN DE PUERTO RICO, usually called *Porto Rico*, one of the West India islands belonging to Spain, is situated in about 18. N. Lat. and between 65. 36. and 67. 45. W. Long. and is about 40 leagues long and 20 broad. The island is beautifully diversified with woods, valleys, and plains, and is extremely fertile. It is well watered with springs and rivers, abounds with meadows, is divided by a ridge of mountains running from east to west, and has a harbour so spacious that the largest ships may lie in it with safety. Before the arrival of the Spaniards it was inhabited by 400,000 or 500,000 people, who, in a few years, were extirpated by its merciless conquerors. Raynal says, that its whole inhabitants amount at present only to 1500 Spaniards, Mestoes, and Mulattoes, and about 3000 negroes. Thus one of the finest islands in the West Indies has been depopulated by the cruelty, and left uncultivated by the indolence, of its possessors. But it is the appointment of Providence, who seldom permits flagrant crimes to pass unpunished, that poverty and wretchedness should be uniform consequences of oppression.

SANICULA, SANICLE, or *Self-heal*, a genus of plants belonging to the pentandria class, and in the natural method ranking under the 45th order, *Umbellata*. See BOTANY *Index*.

SANIES, in *Medicine*, a serous putrid matter, issuing from wounds. It differs from pus, which is thicker and whiter.

SANNAZARIUS, JAMES, in Latin *Actius Cincenis Sannazarius*, a celebrated Latin and Italian poet, born at Naples in 1458. He by his wit ingratiated himself into the favour of King Frederic; and, when that prince was dethroned, attended him into France, where he staid with him till his death, which happened in 1504. Sannazarius then returned into Italy, where he applied himself to polite literature, and particularly to Latin and Italian poetry. His gay and facetious humour made him sought for by all companies; but he was so afflicted at the news that Phillibert prince of Orange, general of the emperor's army, had demolished his country-house, that it threw him into an illness, of which he died in 1530. It is said, that being informed a few days before his death, that the prince of Orange was killed in battle, he called out, "I shall die contented, since Mars has punished this barbarous enemy of the Muses." He wrote a great number of Italian and Latin poems: among those in Latin, his *De Partu Virginis* and Eclogues are chiefly esteemed; and the most celebrated of his Italian pieces is his *Arcadia*.

SANSANDING, a town in Africa, situated near the banks of the Niger, in N. Lat. 14° 24′, and 2° 23′ W. Long. It is inhabited by Moors and Negroes to the number of from eight to ten thousand. The Negroes are kind, hospitable, and credulous; the Moors are, at Sansanding, as everywhere else in the interior parts of Africa, fanatical, bigotted, and cruel.

SANTA CRUZ, a large island in the South sea, and one of the most considerable of those of Solomon, being about 250 miles in circumference. W. Long. 130. 0. S. Lat. 10. 21.

SANTA CRUZ, or St CROIX, a small and unhealthy island, situated in about 64 degrees west longitude and 18 north latitude. It is about eighteen leagues in length, and from three to four in breadth. In 1643 it was inhabited by Dutch and English, who soon became enemies to each other; and in 1650 were both driven out by 1200 Spaniards, who arrived there in five ships. The triumph of these lasted but a few months. The remains of that numerous body, which were left for the defence of the island, surrendered without resistance to 160 French, who had embarked, in 1651, from St Christopher's, to make themselves masters of the island.

Santa Cruz.

Raynal's History of the East and West Indies, vol. iv. p. 298.

These new inhabitants lost no time in making themselves acquainted with a country so much disputed. On a soil, in other respects excellent, they found only one river of a moderate size, which, gliding gently almost on a level with the sea through a flat country, furnished only a brackish water. Two or three springs, which they found in the innermost parts of the island, made but feeble amends for this defect. The wells were for the most part dry. The construction of reservoirs required time. Nor was the climate more inviting to the new inhabitants. The island being flat, and covered with old trees, scarcely afforded an opportunity for the winds to carry off the poisonous vapours with which its morasses clogged the atmosphere. There was but one remedy for this inconvenience; which was to burn the woods. The French set fire to them without delay; and, getting on board their ships, became spectators from the sea, for several months, of the conflagration they had raised in the island. As soon as the flames were extinguished, they went on shore again.

They found the soil fertile beyond belief. Tobacco, cotton, arnotto, indigo, and sugar, flourished equally in it. So rapid was the progress of this colony, that in 11 years from its commencement there were upon it 822 white persons, with a proportionable number of slaves. It was rapidly advancing to prosperity, when such obstacles were thrown in the way of its activity as made it decline again. This decay was as sudden as its rise. In 1696 there were no more than 147 men, with their wives and children, and 623 blacks remaining; and these were transported to St Domingo.

Some obscure individuals, some writers unacquainted with the views of government, with their secret negotiations, with the character of their ministers, with the interests of the protectors and the protected; who flatter themselves that they can discern the reason of events amongst a multitude of important or frivolous causes, which may have equally occasioned them; who do not conceive, that among all these causes the most natural may possibly be the farthest from the truth; who after having read the news, or journal of the day, with profound attention, decide as peremptorily as if they had been placed all their lifetime at the helm of the state, and had assisted at the council of kings; who are never more deceived than in those circumstances in which they display some share of penetration; writers as absurd in the praises as in the blame which they bestow upon nations, in the favourable or unfavourable opinion they form of ministerial operations: these idle dreamers, in a word, who think they are persons of importance, because their attention is always engaged on matters of consequence, being convinced that courts are always governed in their decisions by the most comprehensive views of profound policy, have supposed that the court of

of Versailles had neglected Santa Cruz, merely because they wished to abandon the small islands in order to unite all their strength, industry and population, in the large ones; but this is a mistaken notion. This determination arose from the farmers of the revenue, who found that the contraband trade of Santa Cruz with St Thomas was detrimental to their interests. The spirit of finance hath in all times been injurious to commerce; it hath destroyed the source from whence it sprang. Santa Cruz continued without inhabitants, and without cultivation, till 1733, when it was sold by France to Denmark for 30,750*l.* Soon after, the Danes built there the fortress of Christianstadt. Then it was that this northern power seemed likely to take deep root in America. Unfortunately, she laid her plantations under the yoke of exclusive privileges. Industrious people of all sects, particularly Moravians, strove in vain to overcome this great difficulty. Many attempts were made to reconcile the interests of the colonists and their oppressors, but without success. The two parties kept up a continual struggle of animosity, not of industry. At length the government, with a moderation not to be expected from its constitution, purchased, in 1754, the privileges and effects of the company. The price was fixed at 412,500*l.* part of which was paid in ready money, and the remainder in bills upon the treasury, bearing interest. From this time the navigation to the islands was opened to all the subjects of the Danish dominions. Of 345 plantations, which were seen at Santa Cruz, 150 were covered with sugar canes, and every habitation is limited to 3000 Danish feet in length, and 2000 in breadth. It is inhabited by 2136 white men, by 22,244, slaves, and by 155 freedmen.

Santa Cruz, in Teneriffe. See Teneriffe.

Santa Cruz, a town of Africa, on the coast of Barbary, and in the province of Suez and kingdom of Morocco, with a harbour and a fort. The Moors took it from the Portuguese in 1536. It is seated at the extremity of Mount Atlas, on the Cape Aguer. W. Long. 10. 7. N. Lat. 30. 38.

Santa Cruz de la Sierra, a town of South America, and capital of a province of that name in Peru, and in the audience of Los Chareas, with a bishop's see. It is seated at the foot of a mountain, in a country abounding in good fruits, on the river Guapy. W. Long. 59. 35. S. Lat. 20. 40.

Santa Fe de Bogota, a town of South America, and capital of New Granada, with an archbishop's see, a supreme court of justice, and an university.

The city is situated at the foot of a steep and cold mountain, at the entrance of a vast and superb plain. In 1774 it contained 1770 houses, 3246 families, and 16,233 inhabitants. Population must necessarily increase there, since it is the seat of government, the place where the coin is stricken, the staple of trade; and lastly, since it is the residence of an archbishop, whose immediate jurisdiction extends over 31 Spanish villages, which are called towns; over 195 Indian colonies, anciently subdued; and over 28 missions, established in modern times. This archbishop hath likewise, as metropolitan, a sort of inspection over the dioceses of Quito, of Panama, of Caraccas, of St Martha, and of Carthagena. It is by this last place, though at the distance of 100 leagues, and by the river Magdalena, that Santa Fe keeps up its communication with Europe. There are silver mines in the mountains about the city. W. Long. 60. 5. N. Lat. 3. 58.

SANTALUM, a genus of plants belonging to the octandria class; and in the natural method ranking with those of which the order is doubtful. See Botany *Index*.

SANTAREN, a handsome town of Portugal, in Estremadura, seated on a mountain near the river Tajo, 55 miles N. E. from Lisbon, in a country very fertile in wheat, wine, and oil. They get in their harvest here two months after they have sown their corn. It was taken from the Moors in 1447. The population is estimated at 8000 W. Long. 8. 48. N. Lat. 39. 15.

SANT'AUGUSTINE. See Augustine.

SANTEN, a town of Germany, in the Prussian territories in Westphalia. It is seated on the Rhine, 15 miles S. E. from Cleves. It has a handsome church belonging to the Roman Catholics, wherein is an image of the Virgin Mary, which it is pretended performs a great many miracles. Here the fine walks begin that run as far as Wesel, from which it is five miles distant to the north-west. E. Long. 6. 33. N. Lat. 51. 38.

SANTERRE, the former name of a small territory of France, in Picardy; bounded on the north by Cambresis, on the east by Vermandois, on the west by Amienois, and on the south by the river Somme. It is very fertile, and the capital town is Peronne.

SANTEUIL, or rather Santeul, John Baptist de, in Latin *Santolius Victorinus*, an excellent Latin poet, was born at Paris in 1630. Having finished his studies in Louis the Great's college, he applied himself entirely to poetry, and celebrated in his verse the praises of several great men; by which he acquired universal applause. He enriched Paris with a great number of inscriptions, which are to be seen on the public fountains, and the monuments consecrated to posterity. At length, some new hymns being to be composed for the Breviary of Paris, Claude Santeuil his brother, and M. Bossuet, persuaded him to undertake that work; and he succeeded in it with the greatest applause. On which the order of Clugny desiring him to compose some for their Breviary, he complied with their request; and that order, out of gratitude, granted him letters of filiation, with an annual pension. Santeuil was caressed by all the learned men of his time; and had for his admirers the two princes of Condé, the father and son, from whom he frequently received favours. Louis XIV. also gave him a proof of his esteem, by bestowing a pension upon him. He attended the Duke of Bourbon to Dijon, when that prince went thither in order to hold the states of Burgundy; and died there in 1697, as he was preparing to return to Paris. Besides his Latin hymns, he wrote a great number of Latin Poems, which have all the fire and marks of genius discoverable in the works of great poets.

To Santeuil we are indebted for many fine church-hymns, as above mentioned. Santeuil read the verses he made for the inhabitants of heaven with all the agitations of a demoniac. Despreaux said he was the devil whom God compelled to praise saints. He was among the number of poets whose genius was as impetuous as his muse was decent.

La Bruyere has painted the character of this singular and truly original poet in the most lively colours. "Image

"Image a man of great felicity of temper, complaisant and docile, in an instant violent, choleric, passionate, and capricious. A man simple, credulous, playful, volatile, puerile; in a word, a child in gray hairs: but let him collect himself, or rather call forth his interior genius, I venture to say, without his knowledge or privacy, what sallies! what elevation! what images! what latinity! Do you speak of one and the same person, you will ask? Yes, of the same; of Theodas, and of him alone. He shrieks, he jumps, he rolls upon the ground, he roars, he storms; and in the midst of this tempest, a flame issues that shines, that rejoices. Without a figure, he rattles like a fool, and thinks like a wise man. He utters truths in a ridiculous way; and, in an idiotic manner, rational and sensible things. It is astonishing to find good sense disclose itself from the bosom of buffoonery, accompanied with grimaces and contortions. What shall I say more? He does and he says better than he knows. These are like two souls that are unacquainted with each other, which have each their turn and separate functions."

SANTILLANE, a sea-port town of Spain, in the province of Asturias, of which it is the capital. It is seated on the sea-coast, 55 miles east of Oviedo, and 200 north-west of Madrid. W. Long. 4. 2. N. Lat. 43. 23.

SANTOLINA, Lavender-cotton, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

SANTORINI, or Santorin, an island of the Archipelago, to the north of Candia, and distant from it about 90 leagues, and to the south-west of Nanphio. It is eight miles in length, and nearly as much in breadth, and almost covered with pumice stone, whence the soil in general must be dry and barren: it is, however, greatly improved by the labour and industry of the inhabitants, who have turned it into a garden. It affords a great deal of barley, plenty of cotton, and large quantities of wine. Fruit is scarce, except almonds and figs; and there is neither oil nor wood. The partridge and the hare, so common in the other islands of the Archipelago, are scarce at Santorin; but quails are met with in abundance. The inhabitants are all Greeks, and are about 10,000 in number. Pyrgos is the capital town, beside which, there are several little towns and villages. There is but one spring of water in the island, for which reason the rain-water is preserved in cisterns. Though subject to the Turks, they choose their own magistrates. E. Long. 25. 36. N. Lat. 36. 38.

SANIZO, Raphael. See Raphael.

SAO, a territory, called a kingdom, of Africa, on the Gold-coast of Guinea, hardly two miles in length along the shore. It produces abundance of Indian corn, yams, potatoes, palm-wine, and oil. The inhabitants are very treacherous, and there is no dealing with them without great caution. It contains several villages, of which Sabo is the principal.

SAONE, a considerable river of France, which has its source in Mount Vosges near Darney, and falls into the Rhone at Lyons.

Saone, upper, a department in the east of France, including the sources of the river Saone. The soil is fertile in grain, hemp, fruits, and vines, and the pastures are numerous and good. It contains mines of iron, coal, and salt. The manufactures are chiefly of iron, glass, tinware, tiles, paper, and linen; and there is some trade in corn, wine, &c. The territorial extent of this department is 500,220 hectares. The population in 1817 was 300,156. The contributions of this department in 1800 amounted to 2,199,713 francs. Vesoul is the principal town.

Saone and Loire, a department in the east of France, forming part of the ancient Burgundy. The canal of the Centre, which joins the Saone and the Loire, and is about 60 miles in length, lies chiefly in this department. The soil of this department is hilly, but fertile. It produces all kinds of grain, hemp, cattle, and fruits. Its wines are in high estimation. There are mines of iron and coal, and some manufactures of woollens, hosiery, glass, &c. Its territorial extent is 857,678 hectares; its population in 1817 was 471,457. The contributions for 1802 amounted to 4,376,459 francs. Macon is the chief town.

SAP, the juice found in vegetables.

We observed, when treating of Plants, that it has been long disputed whether the sap of plants be analogous to the blood of animals, and circulates in the same manner. We also mentioned the conclusions that Dr Hales drew from his numerous experiments, which were all in opposition to the doctrine that the sap circulates.

Dr Walker, late professor of Natural History in the university of Edinburgh, has published, in the 1st volume of the Philosophical Transactions of Edinburgh, an account of a course of experiments on this subject, accompanied with some observations and conclusions.

It is well known that, in the spring, vegetables contain a great quantity of sap; and there are some trees, as the birch and plane, which, if wounded, will discharge a great portion of it. Whence is this moisture derived? Whether is it imbibed from the atmosphere, or does it flow from the soil through the roots? These are the questions which require first to be answered; and Dr Walker's experiments enable us to answer them with confidence.

He selected a vigorous young birch, 30 feet high and 26 inches in circumference at the ground. He bored a hole just above the ground on the 1st of February, and cut one of its branches at the extremity. He repeated this every second day; but no moisture appeared at either of the places till the 5th of May, when a small quantity flowed on making an incision near the ground. He then cut 21 incisions in the trunk of the tree, on the north side, at the distance of a foot from one another, and reaching from the ground to the height of 20 feet. The incisions were solid triangles, each side being an inch long and an inch deep, and penetrating through the bark and wood. Dr Walker visited the tree almost every day for two months, and marked exactly from which of the incisions the sap flowed. He observed that it flowed from the lowest incision first, and gradually ascended to the highest. The following table will show the progress of the sap upwards, and its correspondence with the thermometer.

The first column is the day of the month on which the observation was made; the second expresses the number of incisions from which the sap flowed on the day of the month opposite; and the third column the degree of the thermometer at noon. Some days are omitted in March, as the incisions, though made on the 5th, did not bleed till the 11th. Some days are also passed

Sap.

passed over in April, because no observation was made on account of rain.

March.	N. of In.	Ther. Noon.	March.	N. of In.	Ther. Noon.
5	—	46	30	8	50
11	2	49	31	7	62
12	2	49			
13	1	44	April 2	7	46
14	4	48	4	10	53
15	5	52	7	11	48
16	5	47	8	11	48
17	4	44	9	12	50
18	5	47	10	13	53
19	6	48	11	13	45
20	5	44	12	13	44
21	7	48	13	13	43
22	7	45	14	14	55
23	8	46	15	14	49
24	9	47	16	16	56
25	9	42	18	16	50
26	7	39	19	17	54
27	8	45	20	19	56
28	8	49	21	20	54
29	8	46	22	21	52

Dr Walker found that the sap ascends through the wood, and still more copiously between the wood and the bark; but none could be perceived ascending through the pith or the bark. He found also, that when the thermometer at noon is about 49, or between 46 and 50, the sap rises about one foot in 24 hours; that when the thermometer is about 45 at noon, it ascends about one foot in two days; and that it does not ascend at all unless the mid-day heat be above 40. He observed that it moves with more velocity through young than through old branches. In one young branch it moved through seven feet in one day, the thermometer being at 49, while it moved in the trunk of the tree only seven feet in seven days. Dr Walker has thus explained the reason why the buds on the extremities of branches unfold first; because they are placed on the youngest wood, to which the sap flows most abundantly.

The effects produced by the motion of the sap deserve to be attended to. In those parts to which it has mounted, the bark easily separates from the wood, and the ligneous circles may, without difficulty, be detached from one another. The buds begin to swell and their scales to separate, while those branches to which the sap has not ascended, remain closely folded. When the sap has reached the extremities of the branches, and has thus pervaded the whole plant, it is soon covered with opening buds, and ceases to bleed. The bleeding ceases first in the upper parts of the tree, and in the lower parts successively downwards, and the wood becomes dry. An inverted branch flows more copiously when cut than those which are erect. This is a proof that the ascent of the sap is not occasioned by capillary attraction; for water which has risen in a small glass tube by this attraction will not descend when the tube is inverted.

It is evident that there is an intimate connexion between heat and the ascent of the sap. It did not begin to flow till the thermometer stood at a certain point: when it fell below 40, it was arrested in its progress. The south side of the tree, when the sun was bright, bled more profusely than the north side; and at sunset the incisions at the top ceased to bleed, where it was exposed most to the cold air, while it still continued to flow from the incisions next to the ground; the ground retaining its heat longer than the air.

Sap, in sieges, is a trench, or an approach made under cover, of 10 or 12 feet broad, when the besiegers come near the place, and the fire from the garrison grows so dangerous that they are not able to approach uncovered.—There are several sorts of saps; the single, which has only a single parapet; the double, having one on each side; and the flying, made with gabions, &c. In all saps traverses are left to cover the men.

Sap, or *Sapp*, in building, as to sap a wall, &c. is to dig out the ground from beneath it, so as to bring it down all at once for want of support.

SAPHIES, a kind of charms, consisting of some scrap of writing, which the Negroes believe capable of protecting them from all evil. The Moors sell scraps of the Koran for this purpose; and indeed any piece of writing may be sold as a saphie; but it would appear that the Negroes are disposed to place greater confidence in the saphies of a Christian than in those of a Moor.

When Mr Park was at Koolikorro, a considerable town near the Niger, and a great market for salt, his landlord, hearing that he was a Christian, immediately thought of procuring a saphie. For this purpose he brought out his *walha*, or writing board, assuring me (says our author) that he would dress me a supper of rice if I would write him a saphie to protect him from wicked men. The proposal was of too great consequence to me to be refused; I therefore wrote the board full, from top to bottom, on both sides; and my landlord, to be certain of having the whole force of the charm, washed the writing from the board into a calabash with a little water; and having said a few prayers over it, drank this powerful draught; after which, lest a single word should escape, he licked the board until it was quite dry. A saphie writer was a man of too great consequence to be long concealed: the important information was carried to the Dooty, who sent his son with half a sheet of writing-paper, desiring me to write him a *naphula saphie* (a charm to procure wealth). He brought me as a present, some meal and milk; and when I had finished the saphie, and read it to him with an audible voice, he seemed highly satisfied with his bargain, and promised to bring me in the morning some milk for my breakfast.

SAPINDUS, the Soap-berry Tree, a genus of plants belonging to the octandria class; and in the natural method ranking under the 23d order, *Trihilatæ*. See Botany *Index*.

SAPONARIA, Sopewort; a genus of plants belonging to the decandria class; and in the natural method ranking under the 22d order, *Caryophyllex*. See Botany *Index*.

SAPOR, Taste. See Taste, and Anatomy, N° 139.

SAPOTA plum. See Achras, Botany *Index*.

SAPPERS, are soldiers belonging to the royal artillery, whose business it is to work at the saps, for which they have an extraordinary pay. A brigade of sappers generally consists of eight men, divided equally into two parties;

Sap || Sappers.

parties; and whilst one of these parties is advancing the sap, the other is furnishing the gabions, fascines, and other necessary implements. They relieve each other alternately.

SAPPHIRA, was the wife of a rich merchant in Gueldres, and equally distinguished for her beauty and her virtue. Rhinsauld, a German officer, and governor of the town of Gueldres, fell in love with her; and not being able to seduce her either by promises or presents, he imprisoned her husband, pretending that he kept up a traiterous correspondence with the enemies of the state. Sapphira yielded to the passion of the governor in order to relieve her husband from chains; but private orders had already been given to put him to death. His unhappy widow, overwhelmed with grief, complained to Charles Duke of Burgundy. He ordered Rhinsauld to marry her, after having made over to her all his possessions. As soon as the deed was signed, and the marriage over, Charles commanded him to be put to death. Thus the children of a wife whom he had seduced, and of a husband whom he had murdered, became lawful heirs to all his wealth.

SAPPHIRE, a species of precious stone, of a blue colour. See MINERALOGY *Index*.

SAPPHO a famous poetess of antiquity, who for her excellence in her art has been called the *Tenth Muse*, was born at Mitylene, in the isle of Lesbos, about 610 years before Christ. She was contemporary with Stesichorus and Alcæus; which last was her countryman, and some think her suitor. A verse of this poet, in which he insinuates to her his passion, is preserved in Aristotle, *Rhet.* lib. i. cap. 9. together with the fair damsel's answer.

ALC. I fain to Sappho would a wish impart,
But fear locks up the secret in my heart.
SAP. Thy downcast look, respect, and timid air,
Too plain the nature of thy wish declare.
If lawless, wild, inordinate desire,
Did not with thoughts impure thy bosom fire,
Thy tongue and eyes, by innocence made bold,
Ere now the secret of thy soul had told.

M. le Fevre observes, that Sappho was not in her usual good humour when she gave so cold an answer to a request, for which, at another time, perhaps she would not have waited.—It has been thought, too, that Anacreon was one of her lovers, and his editor Barnes has taken some pains to prove it: but chronology will not admit this; since, upon inquiry, it will be found that Sappho was probably dead before Anacreon was born. Of the numerous poems this lady wrote, there is nothing remaining but some small fragments, which the ancient scholiasts have cited; a hymn to Venus, preserved by Dionysius of Halicarnassus; and an ode to one of her mistresses: * which last piece confirms a tradition delivered down from antiquity, that her amorous passion extended even to persons of her own sex, and that she was willing to have her mistresses as well as her gallants.

* See *Poetry*, No. 122.

Ovid introduces her making a sacrifice to Phaon, one of her male paramours: from which we learn, that Sappho's love for her own sex did not keep her from loving ours. She fell desperately in love with Phaon, and did all she could to win him; but in vain: upon which she threw herself headlong from a rock, and died.

It is said that Sappho could not forbear following Phaon into Sicily, whither he retired that he might not see her; and that during her stay in that island she probably composed the hymn to Venus, still extant, in which she begs so ardently the assistance of that goddess. Her prayers, however, proved ineffectual: Phaon was cruel to the last degree. The unfortunate Sappho was forced to take the dreadful leap; she went to the promontory Leucas, and threw herself into the sea. The cruelty of Phaon will not surprise us so much, if we reflect, that she was a widow (for she had been married to a rich man in the isle of Andros, by whom she had a daughter named *Cleis*); that she had never been handsome; that she had observed no measure in her passions to both sexes; and that Phaon had long known all her charms. She was, however, a very great wit, and for that alone deserves to be remembered. The Mitylenians held her merit in such high esteem, that they paid her sovereign honours after her death, and stamped their money with her image. The Romans afterwards erected a noble statue of porphyry to her; and in short, ancients as well as moderns have done honour to her memory. Vossius says, that none of the Greek poets excelled Sappho for sweetness of verse; and that she made Archilochus the model of her style, but at the same time took care to soften the severity of his expression. It must be granted, says Rapin, from what is left us of Sappho, that Longinus had great reason to extol the admirable genius of this woman; for there is in what remains of her something delicate, harmonious, and impassioned to the last degree.

SARABAND, a musical composition in triple time, the motions of which are slow and serious.

Saraband is also a dance to the same measure, which usually terminates when the hand that beats the time falls; and is otherwise much the same as the minuet.

The saraband is said to be originally derived from the Saracens, and is usually danced to the sound of the guitar or castanettes.

SARACA, a genus of plants belonging to the diadelphia class. See BOTANY *Index*.

SARACENS, the inhabitants of Arabia; so called from the word *saru*, which signifies a desert, as the greatest part of Arabia is; and this being the country of Mahomet, his disciples were called Saracens.

SARACOLETS, a Negro nation occupying the country between the rivers of Senegal and Gambia. They are a laborious people, cultivate their lands with care, are plentifully supplied with all the necessaries of life, and inhabit handsome and well built villages; their houses, of a circular form, are for the most part terraced; the others are covered with reeds as at Senegal: they are inclosed with a mud wall a foot thick, and the villages are surrounded with one of stone and earth of double that solidity. There are several gates, which are guarded at night for fear of a surprise. This nation is remarkably brave, so that it is very uncommon to find a Saracolet slave. The religious principles of this people are nearly allied to Mahometanism, and still more to natural religion. They acknowledge one God; and believe that those who steal, or are guilty of any crime, are eternally punished. They admit a plurality of wives, and believe their souls to be immortal like their own. The extent of this country is unknown. It is governed by four powerful princes, all bearing the name

name of Fouquet. The least considerable, according to the testimony of the Saracolets, is that of Tuago, who can assemble 30,000 horse.

SARAGOSSA, a city of Spain, in the kingdom of Arragon, with an archbishop's see, an university, and a court of inquisition. It is a large, handsome, and well-built town. The streets are long, broad, well paved, and very clean, and the houses from three to six stories high. It is adorned with many magnificent buildings; and they reckon 17 large churches, and 14 handsome monasteries, not to mention others less considerable. In 1808, this city sustained two of the most memorable sieges recorded in history. When the French in the beginning of the year had occupied a considerable part of Spain, a body of 8000 infantry and 900 cavalry, were despatched under General Le Fevre, against Saragossa. The Spaniards, under the celebrated Palafox, met them in the field, but being worsted in some actions, retired into the town. Saragossa stands in an open plain, covered with olive grounds, but quite unfortified, and without any natural strength of position. The inhabitants were estimated at 60,000. Some parties of French entered the town on the 14th June, but were instantly driven back with great loss. The French commander, sensible that his force was too weak, retired; but on the 27th they renewed their attacks with great reinforcements. From this time to 13th August, the siege continued almost without intermission. After incredible efforts, the French obtained possession of some streets; but the Spaniards obstinately contested every inch of ground. When a summons was sent to the besieged to surrender, "war to the point of the knife," was the reply. To procure ammunition, they collected all the sulphur in the town, worked the soil of the streets for saltpetre, and burnt the stalks of hemp to furnish charcoal. The contest was carried on house by house, and street by street. Batteries were erected by the opposite parties within a few yards of one another; and to prevent the accumulation of carcases on the streets from spreading contagion, Palafox caused French prisoners to be pushed out with a rope attached to them to collect the bodies of their countrymen, and remove them for burial. The women assisted bravely in the most perilous exertions. In this singular warfare the citizens gained by degrees upon their enemies, and from a half of the town which they once possessed, reduced them to an eighth. At length, on the 13th August, the French general Verdier, retired from the town, carrying with him a vast number of wounded. On the 27th November, a French army under Moncey, appeared before the town. The bombardment continued till the 20th February; and after one of the most heroic defences in history, the town was compelled to surrender, 30,000 of the inhabitants having fallen in the siege, and 300 or 400 dying daily of the pestilence, and only a very small number of men remaining fit to bear arms. W. Long. 0. 48. N. Lat. 41. 44.

SARCASM, in *Rhetoric*, a keen bitter expression which has the true point of satire, by which the orator scoffs and insults his enemy: such as that of the Jews to our Saviour; "He saved others, himself he cannot save."

SARCOCELE, in *Surgery*, a spurious rupture or hernia, wherein the testicle is considerably tumefied or indurated, like a scirrhus, or much enlarged by a fleshy excrescence, which is frequently attended with acute pains, so as to degenerate at last into a cancerous disposition. See SURGERY.

SARCOCOLLA, a concrete juice brought from Persia and Arabia, in small whitish-yellow grains, with a few of a reddish and sometimes of a deep red colour mixed with them: the whitest tears are preferred, as being the freshest: its taste is bitter, accompanied with a dull kind of sweetness. See CHEMISTRY.

SARCOLOGY, is that part of anatomy which treats of the soft parts, viz. the muscles, intestines, arteries, veins, nerves, and fat.

SARCOMA, in *Surgery*, denotes any fleshy excrescence.

SARCOPHAGUS, in antiquity, a sort of stone coffin or grave, wherein the ancients deposited the bodies of the dead which were not intended to be burnt.

The word, as derived from the Greek, literally signifies *flesh-eater*; because originally a kind of stone was used for tombs, which quickly consumed the bodies. See the following article.

One of the most celebrated specimens of antiquity is the great sarcophagus, which is commonly called the tomb of Alexander the Great. It fell into the hands of the British at the capitulation of Alexandria in Egypt in 1801, is now deposited in the British Museum, and is thus described by a writer in the Monthly Magazine. * Vol. xxvii. p. 42.

"It was brought from the mosque of St Athanasius, at Alexandria, where it had been transformed, by the Mahometans, into a kind of reservoir, consecrated to contain the water for their pious ablutions. It is of considerable magnitude, and would form an oblong rectangle, were not one of the ends or shorter sides of the parallelogram rounded somewhat like a bathing tub. It is probable that formerly it was covered with a lid, but no trace of it is now visible; but is entirely open like an immense laver, of one single piece of beautiful marble, spotted with green, yellow, reddish, &c. on a ground of a fine black, of the species called breccia, a sort of pudding stone, composed of agglutinated fragments of various sizes, which are denominated according to their component parts. This comes under the class of calcareous breccias. But what renders this magnificent fragment of antiquity peculiarly interesting, is the prodigious quantity of small hieroglyphic characters, with which it is sculptured both within and without, as you may perceive by the figure. It would employ me nearly a month to make faithful copies of them: their shape and general appearance is pretty fairly given in the figure; but it can only serve to convey to you an idea of the monument in one view. A correct and faithful copy of all the hieroglyphics, though an Herculean task, is a desideratum; for it can be only by copying with scrupulous accuracy, and of a large size, the figures of this symbolical language, that we can attain the knowledge of a mysterious composition, on which depends that of the history of a country, once so highly celebrated. When that language shall be understood, we may perhaps learn the original purpose of this sarcophagus, and the history of the puissant man whose spoils it contained. Till then it is but the vain and flitting field of conjecture. Plate CCCCLXVIII.

"Many men of science and learning, have examined this memento of Egyptian skill and industry; but no positive

Sarcophagus.

positive decision of its former application is yet found by the learned. Sonnini and Denon, who both closely and attentively examined it, have pronounced nothing decisive on the subject. Dr Clark of Cambridge, an indefatigable and learned antiquary, has asserted that the sarcophagus of the museum really was the tomb of Alexander; but it requires more talents than I possess, to remove the obstacles that withstand the clear intelligibility of this invaluable antique."

SARCOPHAGUS, or *Lapis Assius*, in the natural history of the ancients, a stone much used among the Greeks in their sepultures, is recorded to have always perfectly consumed the flesh of human bodies buried in it in forty days. This property it was much famed for, and all the ancient naturalists mention it. There was another very singular quality also in it, but whether in all, or only in some peculiar pieces of it, is not known: that is, its turning into stone any thing that was put into vessels made of it. This is recorded only by Mutianus and Theophrastus, except that Pliny had copied it from these authors, and some of the later writers on these subjects from him. The account Mutianus gives of it is, that it converted into stone the shoes of persons buried in it, as also the utensils which it was in some places customary to bury with the dead, particularly those which the person while living most delighted in. The utensils this author mentions, are such as must have been made of very different materials; and hence it appears that this stone had a power of consuming not only flesh, but that its petrifying quality extended to substances of very different kinds. Whether ever it really possessed this last quality has been much doubted; and many, from the seeming improbability of it, have been afraid to record it. What has much encouraged the general disbelief of it is, Mutianus's account of its taking place on substances of very different kinds and textures; but this is no real objection, and the whole account has probably truth in it. Petrifactions in those early days might not be distinguished from incrustations of sparry and stony matter on the surfaces of bodies only, as we find they are not with the generality of the world even to this day; the incrustations of spar on mosses and other substances in some of our springs, being at this time called by many *petrified moss*, &c.; and incrustations like these might easily be formed on substances enclosed in vessels made of this stone, by water passing through its pores, dislodging from the common mass of the stone, and carrying with it particles of such spar as it contained; and afterwards falling in repeated drops on whatever lay in its way, it might again deposit them on such substances in form of incrustations. By this means, things made of ever so different matter, which happened to be inclosed, and in the way of the passage of the water, would be equally incrusted with, and in appearance turned into, stone, without regard to the different configurations of their pores and parts.

The place from whence the ancients tell us they had this stone was Assos, a city of Lycia, in the neighbourhood of which it was dug; and De Boot informs us, that in that country, and in some parts of the East, there are also stones of this kind, which, if tied to the bodies of living persons, would in the same manner consume their flesh. *Hill's Notes on Theophrastus*, p. 14.

SARCOTICS, in *Surgery*, medicines which are supposed to generate flesh in wounds.

Sarcotics || Sardinia.

SARDANAPALUS, the last king of Assyria, whose character is one of the most infamous in history. He is said to have sunk so far in depravity, that, as far as he could, he changed his very sex and nature. He clothed himself as a woman, and spun amidst companies of his concubines. He painted his face, and behaved in a more lewd manner than the most lascivious harlot. In short, he buried himself in the most unbounded sensuality, quite regardless of sex and the dictates of nature. Having grown odious to all his subjects, a rebellion was formed against him by Arbaces the Mede and Belesis the Babylonian. They were attended, however, with very bad success at first, being defeated with great slaughter in three pitched battles. With great difficulty Belesis prevailed upon his men to keep the field only five days longer; when they were joined by the Bactrians, who had come to the assistance of Sardanapalus, but had been prevailed upon to renounce their allegiance to him. With this reinforcement they twice defeated the troops of Sardanapalus, who shut himself up in Nineveh the capital of his empire. The city held out for three years; at the end of which, Sardanapalus finding himself unable to hold out any longer, and dreading to fall into the hands of an enraged enemy, retired into his palace, in a court of which he caused a vast pile of wood to be raised; and heaping upon it all his gold and silver, and royal apparel, and at the same time inclosing his eunuchs and concubines in an apartment within the pile, he set fire to it, and so destroyed himself and all together.

SARDINIA, an island of the Mediterranean, bounded by the strait which divides it from Corsica on the north; by the Tuscan sea, which flows between this island and Italy, on the east; and by other parts of the Mediterranean sea, on the south and west. It is about 140 miles in length, and 70 in breadth, and contains 420,000 inhabitants. The revenue arises chiefly from a duty upon salt, and is barely sufficient to defray the expenses of government; but it certainly might be considerably augmented, as the soil produces wine, corn, and oil, in abundance. Most of the salt that is exported is taken by the Danes and Swedes; the English formerly took great quantities for Newfoundland; but having found it more convenient to procure it from Spain and Portugal, they now take little or none. A profitable tunny fishery is carried on at the south-west part of the island; but it is monopolized by the proprietors of the adjoining land. Wild boars abound in the hilly parts of the island; and here are some few deer, not so large as those in Britain, but in colour and make exactly the same. Beeves and sheep are also common, as well as horses.

The feudal system still subsists in a limited degree, and titles go with their estates, so that the purchaser of the latter inherits the former. The regular troops seldom exceed 2000 men; but the militia amount to near 26,000, of whom 11,000 are cavalry. Their horses are small, but uncommonly active. In a charge, we should beat them; but, on a march, they would be superior to us. The country people are generally armed; but notwithstanding their having been so long under the Spanish and Italian government, assassinations are by no means frequent; and yet, by the laws of the country, if

a man stabs another without premeditated malice, within four hours after quarrelling with him, he is not liable to be hanged. On the other hand, the church affords no protection to the guilty. The Sardinians are not at all bigotted; and, next to the Spaniards, the English are their favourites. This island was formerly subject to the duke of Savoy, who enjoyed the title of king of Sardinia. See CAGLIARI. It is now under the dominion of the French.

There is in this island a pleasing variety of hills and valleys, and the soil is generally fruitful; but the inhabitants are a slothful generation, and cultivate but a little part of it. On the coast there is a fishery of anchovies and coral, of which they send large quantities to Genoa and Leghorn. This island is divided into two parts; the one, called *Capo di Cagliari*, lies to the south; and the other *Capo di Lugary*, which is seated to the north. The principal towns are Cagliari the capital, Oristagno, and Sassari.

SARDIS, or SARDES, now called *Sardo*, or *Sart*, is an ancient town of Natolia in Asia, about 40 miles east of Smyrna. It was much celebrated in early antiquity, was enriched by the fertility of the soil, and had been the capital of the Lydian kings. It was seated on the side of Mount Tmolus; and the citadel, placed on a lofty hill, was remarkable for its great strength. It was the seat of King Crœsus, and was in his time taken by Cyrus; after which the Persian satrapas or commandant resided at Sardis as the emperor did at Susa. The city was also taken, burnt, and then evacuated by the Milesians in the time of Darius, and the city and fortress surrendered on the approach of Alexander after the battle of Granicus. Under the Romans Sardis was a very considerable place till the time of Tiberius Cæsar, when it suffered prodigiously by an earthquake. The munificence of the emperor, however, was nobly exerted to repair the various damages it then sustained. Julian attempted to restore the heathen worship in the place. He erected temporary altars where none had been left, and repaired the temples if any vestiges remained. In the year 400 it was plundered by the Goths, and it suffered considerably in the subsequent troubles of Asia. On the incursion of the Tartars in 1304, the Turks were permitted to occupy a portion of the citadel, separated by a strong wall with a gate, and were afterwards murdered in their sleep. The site of this once noble city is now green and flowery, the whole being reduced to a poor village, containing nothing but wretched huts. There are, however, some curious remains of antiquity about it, and some ruins which display its ancient grandeur. See *Chandler's Travels in Asia Minor*, p. 251, &c.

There is in the place a large caravansary, where travellers may commodiously lodge. The inhabitants are generally shepherds, who lead their sheep into the fine pastures of the neighbouring plain. The Turks have a mosque here, which was a Christian church, at the gate of which there are several columns of polished marble. There are a few Christians, who are employed in gardening. E. Long. 28. 5. N. Lat. 37. 51.

SARDONIUS RISUS, *Sardonian Laughter*; a convulsive involuntary laughter; thus named from the herba sardonia, which is a species of ranunculus, and is said to produce such convulsive motions in the cheeks as resemble those motions which are observed in the face during a fit of laughter. This complaint is sometimes speedily fatal. If the ranunculus happens to be the cause, the cure must be attempted by means of a vomit, and frequent draughts of hydromel with milk.

SARDONYX, a precious stone, consisting of a mixture of the calcedony and carnelian, sometimes in strata, but at other times blended together. See MINERALOGY.

SARMENTOSÆ (from *sarmentum*, a long shoot like that of a vine); the name of the 11th class in Linnæus's Fragments of a Natural Method, consisting of plants which have climbing stems and branches, that, like the vine, attach themselves to the bodies in their neighbourhood for the purpose of support. See BOTANY.

SAROS, in chronology, a period of 223 lunar months. The etymology of the word is said to be Chaldean, signifying restitution, or return of eclipses; that is, conjunctions of the sun and moon in nearly the same place of the ecliptic. The Saros was a cycle like to that of Meto.

SAROTHRA, a genus of plants, belonging to the pentandria class; and in the natural method ranking under the 20th order, *Rotaceæ*. See BOTANY *Index*.

SARPLAR *of* WOOL, a quantity of wool, otherwise called a *pocket* or *half sack*; a sack containing 80 tod; a tod two stone; and a stone 14 pounds.—In Scotland it is called *sarpliath*, and contains 80 stone.

SARRACONIA, a genus of plants belonging to the polyandria class; and in the natural method ranking under the 54th order, *Miscellaneæ*. See BOTANY *Index*.

SARRASIN, or SARRAZIN, in fortification, a kind of portcullis, otherwise called a herse, which is hung with ropes over the gate of a town or fortress, to be let fall in case of a surprise.

SARSAPARILLA. See SMILAX, BOTANY, and MATERIA MEDICA *Index*.

SARTHE, a department in the west of France, forming part of the ancient Maine. It contains a considerable proportion of poor soil and wastes, and the surface is generally hilly. The principal productions are rye, maise, buck wheat, and vines; and there are considerable pastures. The manufactures are considerable, and consist of serges, flannels, druggets, light woollens, cloths of linen and hemp, handkerchiefs, hosiery, laces, paper, iron-ware, glass, soap, &c. The territorial extent of the department is 639,276 hectares: the population in 1817 was 410,380. The contributions in the year 1802 amounted to 3,986,579 francs. Mans is the chief town. The department takes its name from the river Sarthe, which runs through it in a south-west direction, and falls into the Loire near Angers.

SARTORIUS, in *Anatomy*. See there, *Table of the Muscles*.

OLD SARUM, in Wilts, about one mile north of New Sarum or Salisbury, has the ruins of a fort which belonged to the ancient Britons; and is said also to have been one of the Roman stations. It has a double intrenchment, with a deep ditch. It is of an orbicular form, and has a very august look, being erected on one of the most elegant plans for a fortress that can be imagined. In the north-west angle stood the palace of the bishop, whose see was removed hither from Wilton and Sherborn; but the bishop quarrelling with King Stephen, he seized the castle and put a garrison into it, which

which was the principal cause of its destruction, as the see was soon after removed from hence to Salisbury in 1219. The area of this ancient city is situated on an artificial hill, whose walls were three yards thick, the ruins of which in many places in the circumference are still to be seen, and the tracks of the streets and cathedral church may be traced out by the different colour of the corn growing where once the city stood. Here synods and parliaments have formerly been held, and hither were the states of the kingdom summoned to swear fidelity to William the Conqueror. Here also was a palace of the British and Saxon kings, and of the Roman emperors; which was deserted in the reign of Henry III. for want of water, so that one farm house is all that is left of this ancient city; yet it is called the *Borough of Old Sarum*, and sends two members to parliament, who are chosen by the proprietors of certain adjacent lands.

In February 1795 a subterraneous passage was discovered at this place, of which we have the following account in the Gentleman's Magazine for March, in a letter dated Salisbury, Feb. 10. "Some persons of Salisbury on Saturday last went to the upper verge of the fortification (the citadel), and on the right hand, after they had reached the summit, discovered a large hole. They got a candle and lantern, and went down a flight of steps for more than 30 yards. It was an arched way seven feet wide, neatly chiselled out of the solid rock or chalk. It is probable the crown of the arch gave way from the sudden thaw, and fell in. There is a great deal of rubbish at the entrance. It appears to be between six and seven feet high, and a circular arch overhead all the way. These particulars I learned from the person who himself explored it; but was afraid to go farther, lest it might fall in again and bury him. He thinks it turns a little to the right towards Old Sarum house, and continues under the fosse till it reaches the outer verge. The marks of a chisel, he says, are visible on the side. There are two large pillars of square stone at the entrance, which appear to have had a door at foot. They are 18 inches by 27, of good free-stone, and the mason work is extremely neat. The highest part of the archway is two feet below the surface of the ground.

"It is all now again filled up by order of farmer Whitechurch, who rents the ground of Lord Camelford, and thinks curiosity would bring so many people there as to tread down his grass whenever grass shall be there. I went into it 30 yards, which was as far as I could get for the rubbish. I measured it with a line, and found it extend full 120 feet inwards from the two pillars supposed to be the entrance; then onwards it appeared to be filled to the roof with rubbish. By measuring with the same line on the surface of the earth, I found it must go under the bottom of the outer bank of the outer trench; where I think the opening may be found by digging a very little way. Whether it was a Roman or a Norman work it is difficult to say; but it certainly was intended as a private way to go into or out of the castle; and probably a fort or strong castle was built over the outer entrance. I looked for inscriptions or coins, but have not heard of any being found."

SASAFRAS. See LAURUS, BOTANY and MATERIA MEDICA *Index*.

SASHES, in military dress, are badges of distinction worn by the officers of most nations, either round their waist or over their shoulders. Those for the British army were made of crimson silk; for the Imperial army crimson and gold; for the Prussian army black silk and silver; the Hanoverians yellow silk; the Portuguese crimson silk with blue tassels.

SASINE, or SEISIN. See LAW, N° clxiv. 15. &c.

SASSA. See MYRRH, OPOCALPASUM, MATERIA MEDICA *Index*, and *Bruce's Travels*, vol. v. p. 27, &c.

SATAN, a name very common in Scripture, means the devil or chief of the fallen angels. See DEVIL.

SATELLITE, in *Astronomy*, the same with a secondary planet or moon.

SATIRE. See SATYR.

SATRAPA, or SATRAPES, in Persian antiquity, denotes an admiral; but more commonly the governor of a province.

SATTIN, a glossy kind of silk stuff, the warp of which is very fine, and stands so as to cover the coarser woof.

SATTINET, a slight thin kind of sattin, which is commonly striped, and is employed for different purposes of female dress.

SATURANTS, in *Anatomy*, the same with ABSORBENTS.

SATURATION, in *Chemistry*, is the impregnating an acid with an alkali, or *vice versa*, till either receive no more, and the mixture then becomes neutral.

SATURDAY, the seventh and last day of the week, so called from the idol Seater, worshipped on this day by the ancient Saxons, and thought to be the same as the Saturn of the Latins.

SATUREIA, SAVORY, a genus of plants belonging to the didynamia class; and in the natural method ranking under the 42d order, *Verticillatæ*. See BOTANY *Index*.

SATURN, in *Astronomy*, one of the planets of our solar system, revolving at the distance of more than 900 millions of miles from the sun. See ASTRONOMY *Index*.

SATURN, in *Chemistry*, an appellation formerly given to lead.

SATURN, in *Heraldry*, denotes the black colour in blazoning the arms of sovereign princes.

SATURN, one of the principal of the Pagan deities, was the son of Cœlus and Terra, and the father of Jupiter. He deposed and castrated his father; and obliged his brother Titan to resign his crown to him, on condition of his bringing up none of his male issue, that the succession might at length devolve on him. For this purpose he devoured all the sons he had by his wife Rhea or Cybele: but she bringing forth at one time Jupiter and Juno, she presented the latter to her husband, and sent the boy to be nursed on Mount Ida; when Saturn being informed of her having a son, demanded the child; but in his stead his wife gave him a stone swaddled up like an infant, which he instantly swallowed. Titan finding that Saturn had violated the contract he had made with him, put himself at the head of his children and made war on his brother, and having made him and Cybele prisoners, confined them in Tartarus: but Jupiter being in the mean time grown up, raised an army in Crete, went to his father's assistance, defeated Titan, and restored Saturn to the throne.

Some

Some time after, Saturn being told that Jupiter intended to dethrone him, endeavoured to prevent it; but the latter being informed of his intention, deposed his father, and threw him into Tartarus. But Saturn escaping from thence, fled into Italy, where he was kindly received by Janus king of the country, who associated him to the government: whence Italy obtained the name of *Saturnia Tellus;* as also that of *Latium*, from *lateo*, "to lie hid." There Saturn, by the wisdom and mildness of his government, is said to have produced the golden age.

Saturn is represented as an old man with four wings, armed with a scythe; sometimes he is delineated under the figure of a serpent with its tail in its mouth. This is emblematic of the seasons, which roll perpetually in the same circle. Sometimes also Saturn is painted with a sand-glass in his hand. The Greeks say, that the story of his mutilating his father and destroying his children is an allegory, which signifies, that Time devours the past and present, and will also devour the future. The Romans, in honour of him, built a temple, and celebrated a festival which they called *Saturnalia*. During this festival no business or profession was allowed to be carried on except cookery; all distinctions of rank ceased; slaves could say what they pleased to their masters with impunity; they could even rally them with their faults before their faces.

SATURNALIA, in Roman antiquity, a festival observed about the middle of December, in honour of the god Saturn, whom Lucan introduces giving an account of the ceremonies observed on this occasion, thus. "During my whole reign, which lasts but for one week, no public business is done; there is nothing but drinking, singing, playing, creating imaginary kings, placing servants with their masters at table, &c. There shall be no disputes, reproaches, &c. but the rich and poor, masters and slaves, shall be equal," &c.

On this festival the Romans sacrificed bare-headed, contrary to their custom at other sacrifices.

SATURNINE, an appellation given to persons of a melancholy disposition, as being supposed under the influence of the planet Saturn.

SATYAVRATA, or MENU, in Indian mythology, is believed by the Hindoos to have reigned over the whole world in the earliest age of their chronology, and to have resided in the country of Dravira on the coast of the eastern Indian peninsula. His patronymic name was *Vaivaswata*, or *child of the sun*. In the *Bhagavat* we are informed, that the Lord of the universe, intending to preserve him from the sea of destruction, caused by the depravity of the age, thus told him how he was to act. "In seven days from the present time, O thou tamer of enemies, the three worlds will be plunged in an ocean of death; but, in the midst of the destroying waves, a large vessel, sent by me for thy use, shall stand before thee. Then shalt thou take all medicinal herbs, all the variety of seeds; and, accompanied by seven saints, encircled by pairs of all brute animals, thou shall enter the spacious ark and continue in it, secure from the flood on one immense ocean without light, except the radiance of thy holy companions. When the ship shall be agitated by an impetuous wind, thou shalt fasten it with a large sea-serpent on my horn; for I will be near thee; drawing the vessel, with thee and thy attendants, I will remain on the ocean, O chief of men, until a night of Brahmá shall be completely ended. Thou shalt then know my true greatness, rightly named the supreme Godhead: by my favour, all thy questions shall be answered, and thy mind abundantly instructed." All this is said to have been accomplished; and the story is evidently that of Noah disguised by Asiatic fiction and allegory. It proves, as Sir William Jones has rightly observed, an ancient Indian tradition of the universal deluge described by Moses; and enables us to trace the connexion between the eastern and western traditions relating to that event. The same learned author has shown it to be in the highest degree probable, that the *Satyavrata* of India is the *Cronus* of Greece and the *Saturn* of Italy. See SATURN; and *Asiatic Researches*, vol. i. p. 230, &c.

SATYR, or SATIRE, in matters of literature, a discourse or poem, exposing the vices and follies of mankind. See POETRY, Part II. sect. x.

The chief satirists among the ancients are, Horace, Juvenal, and Persius; those among the moderns are, Regnier and Boileau, in French; Butler, Dryden, Rochester, Buckingham, Swift, Pope, Young, &c. among the English; and Cervantes among the Spaniards.

SATYRIASIS. See MEDICINE *Index*.

SATYRIUM, a genus of plants belonging to the gynandria class; and in the natural method ranking under the 42d order. *Verticillatæ*. See BOTANY *Index*.

SATYRS, in ancient mythology, a species of demigods who dwelt in the woods. They are represented as monsters, half-men, and half-goats; having horns on their heads, a hairy body, with the feet and tail of a goat. They are generally in the train that follows Bacchus. As the poets supposed that they were remarkable for piercing eyes and keen raillery, they have placed them in the same pictures with the Graces, Loves, and even with Venus herself.

SAVAGE, RICHARD, one of the most remarkable characters that is to be met with perhaps in all the records of biography, was the son of Anne countess of Macclesfield by the earl of Rivers, according to her own confession; and was born in 1698. This confession of adultery was made in order to procure a separation from her husband the earl of Macclesfield; yet, having obtained this desired end, no sooner was her spurious offspring brought into the world, than, without the dread of shame or poverty to excuse her, she discovered the resolution of disowning him; and, as long as he lived, treated him with the most unnatural cruelty. She delivered him over to a poor woman to educate as her own; prevented the earl of Rivers from leaving him a legacy of 6000*l.* by declaring him dead: and in effect deprived him of another legacy which his godmother Mrs Lloyd had left him, by concealing from him his birth, and thereby rendering it impossible for him to prosecute his claim. She endeavoured to send him secretly to the plantations; but this plan being either laid aside or frustrated, she placed him apprentice with a shoemaker. In this situation, however, he did not long continue; for his nurse dying, he went to take care of the effects of his supposed mother; and found in her boxes some letters which discovered to young Savage his birth, and the cause of its concealment.

From the moment of this discovery it was natural for him to become dissatisfied with his situation as a shoemaker. He now conceived that he had a right to share in

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Savage was at this time so touched with the discovery of his birth, that he frequently made it his practice to walk before his mother's door in hopes of seeing her by accident; and often did he warmly solicit her to admit him to see her; but all to no purpose: he could neither soften her heart nor open her hand.

Meantime, while he was assiduously endeavouring to rouse the affections of a mother in whom all natural affection was extinct, he was destitute of the means of support, and reduced to the miseries of want. We are not told by what means he got rid of his obligation to the shoemaker, or whether he ever was actually bound to him; but we now find him very differently employed in order to procure a subsistence. In short, the youth had parts, and a strong inclination towards literary pursuits, especially poetry. He wrote a poem; and afterwards two plays, *Woman's a Riddle*, and *Love in a Veil*: but the author was allowed no part of the profits from the first; and from the second he received no other advantage than the acquaintance of Sir Richard Steele and Mr Wilks, by whom he was pitied, caressed, and relieved. However, the kindness of his friends not affording him a constant supply, he wrote the tragedy of *Sir Thomas Overbury*; which not only procured him the esteem of many persons of wit, but brought him in 200*l.* The celebrated Aaron Hill, Esq. was of great service to him in correcting and fitting this piece for the stage and the press; and extended his patronage still farther. But Savage was, like many other wits, a bad manager, and was ever in distress. As fast as his friends raised him out of one difficulty, he sunk into another; and, when he found himself greatly involved, he would ramble about like a vagabond, with scarce a shirt on his back. He was in one of these situations during the time that he wrote his tragedy above mentioned; without a lodging, and often without a dinner: so that he used to scribble on scraps of paper picked up by accident, or begged in the shops, which he occasionally stepped into, as thoughts occurred to him, craving the favour of pen and ink, as it were just to take a memorandum.

Mr Hill also earnestly promoted a subscription to a volume of *Miscellanies*, by Savage; and likewise furnished part of the poems of which the volume was composed. To this miscellany Savage wrote a preface, in which he gives an account of his mother's cruelty, in a very uncommon strain of humour.

The profits of his Tragedy and his Miscellanies together, had now, for a time, somewhat raised poor Savage both in circumstances and credit; so that the world just began to behold him with a more favourable eye than formerly, when both his fame and life were endangered by a most unhappy event. A drunken frolic in which he one night engaged, ended in a fray, and Savage unfortunately killed a man, for which he was condemned to be hanged; his friends earnestly solicited the mercy of the crown, while his mother as earnestly exerted herself to prevent his receiving it. The countess of Hertford at length laid his whole case before Queen Caroline, and Savage obtained a pardon.

Savage had now lost that tenderness for his mother which the whole series of her cruelty had not been able wholly to repress; and considering her as an implacable enemy, whom nothing but his blood could satisfy, threatened to harass her with lampoons, and to publish a copious narrative of her conduct, unless she consented to allow him a pension. This expedient proved successful; and the lord Tyrconnel, upon his promise of laying aside his design of exposing his mother's cruelty, took him into his family, treated him as an equal, and engaged to allow him a pension of 200*l.* a year. This was the golden part of Savage's life. He was courted by all who endeavoured to be thought men of genius, and caressed by all who valued themselves upon a refined taste. In this gay period of his life he published the *Temple of Health and Mirth*, on the recovery of Lady Tyrconnel from a languishing illness; and *The Wanderer*, a moral poem, which he dedicated to Lord Tyrconnel, in strains of the highest panegyric: but these praises he in a short time found himself inclined to retract, being discarded by the man on whom they were bestowed. Of this quarrel Lord Tyrconnel and Mr Savage assigned very different reasons. Our author's known character pleads too strongly against him; for his conduct was ever such as made all his friends, sooner or later, grow weary of him, and even forced most of them to become his enemies.

Being thus once more turned adrift upon the world, Savage, whose passions were very strong, and whose gratitude was very small, became extremely diligent in exposing the faults of Lord Tyrconnel. He, moreover, now thought himself at liberty to take revenge upon his mother.—Accordingly he wrote *The Bastard*, a poem, remarkable for the vivacity of its beginning where he finely enumerates the imaginary advantages of base birth), and for the pathetic conclusion, wherein he recounts the real calamities which he suffered by the crime of his parents.—The reader will not be displeased with a transcript of some of the lines in the opening of the poem, as a specimen of this writer's spirit and manner of versification.

Blest be the bastard's birth! thro' wondrous ways,
He shines eccentric like a comet's blaze.
No sickly fruit of faint compliance he;
He! stamp'd in nature's mint with ecstasy!
He lives to build, not boast, a gen'rous race;
No tenth transmitter of a foolish face.
He, kindling from within, requires no flame,
He glories in a bastard's glowing name.
—Nature's unbounded son, he stands alone,
His heart unbiass'd, and his mind his own.
—O mother! yet no mother!—'tis to you
My thanks for such distinguish'd claims are due.

This poem had an extraordinary sale; and its appearance happening at the time when his mother was at Bath, many persons there took frequent opportunities of repeating passages from the Bastard in her hearing. This was perhaps the first time that ever she discovered a sense of shame, and on this occasion the power of wit was very conspicuous: the wretch who had, without scruple, proclaimed herself an adulteress, and who had first endeavoured to starve her son, then to transport him

him, and afterwards to hang him, was not able to bear the representation of her own conduct; but fled from reproach, though she felt no pain from guilt; and left Bath with the utmost haste, to shelter herself among the crowds of London (A).

Some time after this, Savage formed the resolution of applying to the queen; who having once given him life, he hoped she might farther extend her goodness to him, by enabling him to support it.—With this view, he published a poem on her birth-day, which he entitled *The Volunteer-Laureat;* for which she was pleased to send him 50*l.* with an intimation that he might annually expect the same bounty. But this annual allowance was nothing to a man of his strange and singular extravagance. His usual custom was, as soon as he had received his pension, to disappear with it, and secrete himself from his most intimate friends, till every shilling of the 50*l.* was spent; which done, he again appeared, pennyless as before: But he would never inform any person where he had been, or in what manner his money had been dissipated.—From the reports, however, of some, who found means to penetrate his haunts, it

(A) Mr Boswell, in his life of Dr Johnson, has called in question the story of Savage's birth, and grounded his suspicion on two mistakes, or, as he calls them, falsehoods, which he thinks he has discovered in his friend's memoirs of that extraordinary man. Johnson has said, that the earl of Rivers was Savage's godfather, and gave him his own name; which, by his direction, was inserted in the register of the parish of St Andrew's, Holborn. Part of this, it seems, is not true; for Mr Boswell carefully inspected that register, but no such entry is to be found. But does this omission amount to a proof, that the person who called himself *Richard Savage* was an impostor, and not the son of the earl of Rivers and the countess of Macclesfield? Mr Boswell thinks it does; and, in behalf of his opinion, appeals to the maxim, *falsum in uno, falsum in omnibus.* The solidity of this maxim may be allowed by others; but it was not without surprise that, on such an occasion, we found it adopted by the biographer of Johnson. To all who have compared his view of a celebrated cause, with Stuart's letters on the same subject addressed to Lord Mansfield, it must be apparent, that, at one period of his life, he would not have deemed a thousand such mistakes sufficient to invalidate a narrative otherwise so well authenticated as that which relates to the birth of Savage. The truth is, that the omission of the name in the register of St Andrew's may be easily accounted for, without bringing against the wretched Savage an accusation of imposture, which neither his mother nor her friends dared to urge when provoked to it by every possible motive that can influence human conduct. The earl of Rivers would undoubtedly give the direction about registering the child's name to the same person whom he entrusted with the care of his education; but that person, it is well known, was the countess of Macclesfield, who, as she had resolved from his birth to disown her son, would take care that the direction should not be obeyed.

That which, in Johnson's life of Savage, Mr Boswell calls a second falsehood, seems not to amount even to a mistake. It is there stated, that "Lady Macclesfield having lived for some time upon very uneasy terms with her husband, thought a public confession of adultery the most obvious and expeditious method of obtaining her liberty." This Mr Boswell thinks cannot be true; because, having perused the journals of both houses of parliament at the period of her divorce, he there found it authentically ascertained, that so far from voluntarily submitting to the ignominious charge of adultery, she made a strenuous defence by her counsel. But what is this to the purpose? Johnson has nowhere said, that she confessed her adultery at the bar of either house of parliament, but only that her confession was *public:* and as he has taught us in his Dictionary, that whatever is *notorious* or *generally* known is *public;* public, in his sense of the word, that confession certainly was, if made to different individuals, in such a manner as showed that she was not anxious to conceal it from her husband, or to prevent its notoriety. She might, however, have very cogent reasons for denying her guilt before parliament, and for making a strenuous defence by her counsel; as indeed, had she acted otherwise, it is very little probable that her great fortune would have been restored to her, or that she could have obtained a second husband.

But Mr Boswell is of opinion, that the person who assumed the name of Richard Savage was the son of the shoemaker under whose care Lady Macclesfield's child was placed; because "his not being able to obtain payment of Mrs Lloyd's legacy must be imputed to his consciousness that he was not the real person to whom that legacy was left." He must have a willing mind who can admit this argument as a proof of imposture. Mrs Lloyd died when Savage was in his 10th year, when he certainly did not know or suspect that he was the person for whom the legacy was intended, when he had none to prosecute his claim, to shelter him from oppression, or to call in law to the assistance of justice. In such circumstances he could not have obtained payment of the money, unless the executors of the will had been inspired from heaven with the knowledge of the person to whom it was due.

To these and a thousand such idle cavils it is a sufficient answer, that Savage was acknowledged and patronized as Lady Macclesfield's son by Lord Tyrconnel, who was that lady's nephew; by Sir Richard Steele, the intimate friend of Colonel Brett, who was that lady's second husband: by the queen, who, upon the authority of that lady and her creatures, once thought Savage capable of entering his *mother's* house in the night with an intent to murder her; and in effect by *the lady herself,* who at one time was prevailed upon to give him 50*l.* and who fled before the satire of the *Bastard,* without offering, either by herself or her friends, to deny that the author of that poem was the person whom he called himself, or to insinuate so much as that he might *possibly* be the son of a shoemaker. To Mr Boswell all this seems *strange:* to others, who look not with so keen an eye for supposititious births, we think it must appear *convincing.*

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it would seem that he expended both his time and his cash in the most sordid and despicable sensuality; particularly in eating and drinking, in which he would indulge in the most unsocial manner, sitting whole days and nights by himself, in obscure houses of entertainment, over his bottle and trencher, immersed in filth and sloth, with scarce decent apparel; generally wrapped up in a horseman's great coat; and, on the whole, with his very homely countenance, altogether exhibiting an object the most disgusting to the sight, if not to some other of the senses.

His wit and parts, however, still raised him new friends as fast as his behaviour lost him his old ones. Yet such was his conduct, that occasional relief only furnished the means of occasional excess; and he defeated all attempts made by his friends to fix him in a decent way. He was even reduced so low as to be destitute of a lodging; insomuch that he often passed his nights in those mean houses that are set open for casual wanderers; sometimes in cellars, amidst the riot and filth of the most profligate of the rabble; and not seldom would he walk the streets till he was weary, and then lie down in summer on a hulk, or in winter with his associates among the ashes of a glass-house.

Yet, amidst all his penury and wretchedness, had this man so much pride, and so high an opinion of his own merit, that he ever kept up his spirits, and was always ready to repress, with scorn and contempt, the least appearance of any slight or indignity towards himself, in the behaviour of his acquaintance; among whom he looked upon none as his superior. He would be treated as an equal, even by persons of the highest rank. We have an instance of this preposterous and inconsistent pride, in his refusing to wait upon a gentleman who was desirous of relieving him when at the lowest ebb of distress, only because the message signified the gentleman's desire to see him at nine in the morning. Savage could not bear that any one should presume to prescribe the hour of his attendance, and therefore he absolutely rejected the proffered kindness. This life, unhappy as it may be already imagined, was yet rendered more unhappy, by the death of the queen, in 1738; which stroke deprived him of all hopes from the court. His pension was discontinued, and the insolent manner in which he demanded of Sir Robert Walpole to have it restored, for ever cut off this considerable supply; which possibly had been only delayed, and might have been recovered by proper application.

His distress became now so great, and so notorious, that a scheme was at length concerted for procuring him a permanent relief. It was proposed that he should retire into Wales, with an allowance of 50*l.* per annum, on which he was to live privately in a cheap place, for ever quitting his town-haunts, and resigning all farther pretensions to fame. This offer he seemed gladly to accept; but his intentions were only to deceive his friends by retiring for a while, to write another tragedy, and then to return with it to London in order to bring it upon the stage.

In 1739, he set out in the Bristol stage-coach for Swansey, and was furnished with 15 guineas to bear the expense of his journey. But, on the 14th day after his departure, his friends and benefactors, the principal of whom was no other than the great Mr Pope, who expected to hear of his arrival in Wales, were surprised with a letter from Savage, informing them that he was yet upon the road, and could not proceed for want of money. There was no other method than a remittance; which was sent him, and by the help of which he was enabled to reach Bristol, from whence he was to proceed to Swansey by water. At Bristol, however, he found an embargo laid upon the shipping; so that he could not immediately obtain a passage. Here, therefore, being obliged to stay for some time, he, with his usual facility, so ingratiated himself with the principal inhabitants, that he was frequently invited to their houses, distinguished at their public entertainments, and treated with a regard that highly flattered his vanity, and therefore easily engaged his affections. At length, with great reluctance, he proceeded to Swansey; where he lived about a year, very much dissatisfied with the diminution of his salary; for he had, in his letters, treated his contributors so insolently, that most of them withdrew their subscriptions. Here he finished his tragedy, and resolved to return with it to London: which was strenuously opposed by his great and constant friend Mr Pope; who proposed that Savage should put this play into the hands of Mr Thomson and Mr Mallet, in order that they might fit it for the stage, that his friends should receive the profits it might bring in, and that the author should receive the produce by way of annuity. This kind and prudent scheme was rejected by Savage with the utmost contempt.—He declared he would not submit his works to any one's correction; and that he should no longer be kept in leading strings. Accordingly he soon returned to Bristol in his way to London; but at Bristol, meeting with a repetition of the same kind treatment he had before found there, he was tempted to make a second stay in that opulent city for some time. Here he was again not only caressed and treated, but the sum of 30*l.* was raised for him, with which it had been happy if he had immediately departed for London: But he never considered that a frequent repetition of such kindness was not to be expected, and that it was possible to tire out the generosity of his Bristol friends, as he had before tired his friends everywhere else. In short, he remained here till his company was no longer welcome. His visits in every family were too often repeated; his wit had lost its novelty, and his irregular behaviour grew troublesome. Necessity came upon him before he was aware; his money was spent, his clothes were worn out, his appearance was shabby; and his presence was disgustful at every table. He now began to find every man from home at whose house he called; and he found it difficult to obtain a dinner. Thus reduced, it would have been prudent in him to have withdrawn from the place; but prudence and Savage were never acquainted. He staid, in the midst of poverty, hunger, and contempt, till the mistress of a coffee-house, to whom he owed about eight pounds, arrested him for the debt. He remained for some time, at a great expense, in the house of the sheriff's officer, in hopes of procuring bail; which expense he was enabled to defray, by a present of five guineas from Mr Nash at Bath. No bail, however, was to be found; so that poor Savage was at last lodged in Newgate, a prison so named in Bristol.

But it was the fortune of this extraordinary mortal always to find more friends than he deserved. The keeper of the prison took compassion on him, and greatly softened the rigours of his confinement by every kind of indulgence; he supported him at his own table, gave him a commodious room to himself, allowed him to stand at the door of the gaol, and even frequently took him into the fields for the benefit of the air and exercise; so that, in reality, Savage endured fewer hardships in this place than he had usually suffered during the greatest part of his life.

While he remained in this not intolerable prison, his ingratitude again broke out, in a bitter satire on the city of Bristol; to which he certainly owed great obligations, notwithstanding the circumstances of his arrest; which was but the act of an individual, and that attended with no circumstances of injustice or cruelty. This satire he entitled *London and Bristol delineated;* and in it he abused the inhabitants of the latter, with such a spirit of resentment, that the reader would imagine he had never received any other than the most injurious treatment in that city.

When Savage had remained about six months in this hospitable prison, he received a letter from Mr Pope, (who still continued to allow him 20*l.* a year) containing a charge of very atrocious ingratitude. What were the particulars of this charge we are not informed; but, from the notorious character of the man, there is reason to fear that Savage was but too justly accused. He, however, solemnly protested his innocence; but he was very unusually affected on this occasion. In a few days after, he was seized with a disorder, which at first was not suspected to be dangerous: but growing daily more languid and dejected, at last a fever seized him; and he expired on the 1st of August 1743, in the 46th year of his age.

Thus lived, and thus died, Richard Savage, Esq.; leaving behind him a character strangely chequered with vices and good qualities. Of the former we have seen a variety of instances in this abstract of his life; of the latter, his peculiar situation in the world gave him but few opportunities of making any considerable display. He was, however, undoubtedly a man of excellent parts; and had he received the full benefits of a liberal education, and had his natural talents been cultivated to the best advantage, he might have made a respectable figure in life. He was happy in a quick discernment, a retentive memory, and a lively flow of wit, which made his company much coveted; nor was his judgement both of writings and of men inferior to his wit: but he was too much a slave to his passions, and his passions were too easily excited. He was warm in his friendships, but implacable in his enmity; and his greatest fault, which is indeed the greatest of all faults, was ingratitude. He seemed to think every thing due to his merit, and that he was little obliged to any one for those favours which he thought it their duty to confer on him: it is therefore the less to be wondered at, that he never rightly estimated the kindness of his many friends and benefactors, or preserved a grateful and due sense of their generosity towards him.

The works of this original writer, after having long lain dispersed in magazines and fugitive publications, have been collected and published in an elegant edition, in 2 vols 8vo; to which are prefixed the admirable memoirs of Savage, written by Dr Samuel Johnson.

SAVAGE is a word so well understood as scarcely to require explanation. When applied to inferior animals, it denotes that they are wild, untamed, and cruel; when applied to man, it is of much the same import with *barbarian*, and means a person who is untaught and uncivilized, or who is in the rude state of uncultivated nature. That such men exist at present, and have existed in most ages of the world, is undeniable; but a question naturally occurs respecting the origin of this savage state, the determination of which is of considerable importance in developing the nature of man, and ascertaining the qualities and powers of the human mind. Upon this subject, as upon most others, opinions are very various, and the systems built upon them are consequently very contradictory. A large sect of ancient philosophers maintained that man sprung at first from the earth like his brother vegetables; that he was without ideas and without speech; and that many ages elapsed before the race acquired the use of language, or attained to greater knowledge than the beasts of the forest. Other sects again, with the vulgar, and almost all the poets, maintained that the first mortals were wiser and happier, and more powerful, than any of their offspring; that mankind, instead of being originally savages, and rising to the state of civilization by their own gradual and progressive exertions, were created in a high degree of perfection; that, however, they degenerated from that state, and that all nature degenerated with them. Hence the various ages of the world have almost everywhere been compared to gold, silver, brass, and iron, the golden having been always supposed to be the first age.

Since the revival of letters in Europe, and especially during the present century, the same question has been much agitated both in France and England, and by far the greater part of the most fashionable names in modern science have declared for the original savagism of men. Such of the ancients as held that opinion, were countenanced by the atheistic cosmogony of the Phœnicians, and by the early history of their own nations; the moderns build their system upon what they suppose to be the constitution of the human mind, and upon the late improvements in arts and sciences. As the question must finally be decided by historical evidence, before we make our appeal to facts, we shall consider the force of the modern reasonings from the supposed innate powers of the human mind; for that reasoning is totally different from the other, and to blend them together would only prevent the reader from having an adequate conception of either.

Upon the supposition that all mankind were originally savages, destitute of the use of speech, and, in the strictest sense of the words, *mutum et turpe pecus*, the great difficulty is to conceive how they could emerge from that state, and become at last enlightened and civilized. The modern advocates for the universality of the savage state remove this difficulty by a number of instincts or internal senses, with which they suppose the human mind endowed, and by which the savage is, without reflection, not only enabled to distinguish between right and wrong, and prompted to do every thing necessary to the preservation of his existence, and the continuance of the species, but also led to the discovery of

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of what will contribute, in the first instance, to the ease and accommodations of life. The seinstincts, they think, brought mankind together, when the reasoning faculty, which had hitherto been dormant, being now roused by the collisions of society, made its observations upon the consequences of their different actions, taught them to avoid such as experience showed to be pernicious, and to improve upon those which they found beneficial; and thus was the progress of civilization begun. But this theory is opposed by objections which we know not how to obviate. The bundle of instincts with which modern idleness, under the denomination of philosophy, has so amply furnished the human mind, is a mere chimera. (See INSTINCT.) But granting its reality, it is by no means sufficient to produce the consequences which are derived from it. That it is not the parent of language, we have shown at large in another place (see LANGUAGE, N° 1—7.); and we have the confession of some of the ablest advocates for the original savagism of man, that large societies must have been formed before language could have been invented. How societies, at least large societies, could be formed and kept together without language, we have not indeed been told; but we are assured by every historian and every traveller of credit, that in such societies only have mankind been found civilized. Among known savages the social *storge* is very much confined; and therefore, had it been in the first race of men of as enlarged a nature, and as safe a guide, as the instinctive philosophers contend that it was, it is plain that those men could not have been savages. Such an appetite for society, and such a director of conduct, instead of enabling mankind to have emerged from savagism, would have effectually prevented them from ever becoming savage; it would have knit them together from the very first, and furnished opportunities for the progenitors of the human race to have begun the process of civilization from the moment that they dropt from the hands of their Creator. Indeed, were the modern theories of internal senses and social affections well founded, and were these senses and affections sufficient to have impelled the first men into society, it is not easy to be conceived how there could be at this day a savage tribe on the face of the earth. Natural causes, operating in the same direction and with the same force, must in every age produce the same effects; and if the social affections of the first mortals impelled them to society, and their reasoning faculties immediately commenced the process of civilization, surely the same affections and the same faculties would in a greater or less degree have had the same effect in every age and on every tribe of their numerous offspring; and we should everywhere observe mankind advancing in civilization, instead of standing still as they often do, and sometimes retreating by a retrograde motion. This, however, is far from being the case. Hordes of savages exist in almost every quarter of the globe; and the Chinese, who have undoubtedly been in a state of civilization for at least 2000 years, have during the whole of that long period been absolutely stationary, if they have not lost some of their ancient arts. (See PORCELAIN.) The origin of civilization, therefore, is not to be looked for in human instincts or human propensities, carrying men forward by a natural progress; for the supposition of such propensities is contrary to fact; and by fact and historical evidence, in conjunction with what we know of the nature of man, must this great question be at last decided.

In the article RELIGION, N° 7., it has been shown that the first men, if left to themselves without any instruction, instead of living the life of savages, and in process of time advancing towards civilization, must have perished before they acquired even the use of some of their senses. In the same article it has been shown (N° 14—17.), that Moses, as he is undoubtedly the oldest historian extant, wrote likewise by immediate inspiration; and that therefore, as he represents our first parents and their immediate descendants as in a state far removed from that of savages, it is vain to attempt to deduce the originality of such a state from hypothetical theories of human nature. We have, indeed, heard it observed by some of the advocates for the antiquity and universality of the savage state, that to the appeal to revelation they have no objection, provided we take the Mosaic account as it stands, and draw not from it conclusions which it will not support.

They contend, at the same time, that there is no argument fairly deducible from the book of Genesis which militates against their position. Now we beg leave to remark, that besides the reasoning which we have already used in the article just referred to, we have as much positive evidence against their position as the nature of the Mosaic history could be supposed to afford.

We are there told that God created man after his own image; that he gave him dominion over every thing in the sea, in the air, and over all the earth; that he appointed for his food various kinds of vegetables; that he ordained the Sabbath to be observed by him, in commemoration of the works of creation; that he prepared for him a garden to till and to dress; and that, as a test of his religion and submission to his Creator, he forbade him, under severe penalties, to eat of a certain tree in that garden. We are then told that God brought to him every animal which had been created; and we find that Adam was so well acquainted with their several natures as to give them names. When, too, an helpmate was provided for him, he immediately acknowledged her as bone of his bone, flesh of his flesh, and called her *woman*, because she was taken out of man.

How these facts can be reconciled to a state of ignorant savagism is to us absolutely inconceivable: and it is indeed strange, that men who profess Christianity should appeal to reason, and stick by its decision on a question which revelation has thus plainly decided against them. But it is agreeable to their theory to believe that man rose by slow steps to the full use of his reasoning powers. To us, on the other hand, it appears equally plausible to suppose that our first parents were created, not in full maturity, but mere infants, and that they went through the tedious process of childhood and youth, &c. as to suppose that their minds were created weak, uninformed, and uncivilized, as are those of savages.

But if it be granted that Adam had a tolerable share of knowledge, and some civilization, nothing can be more natural than to suppose that he would teach his descendants what he knew himself; and if the Scriptures are to be believed, we are certain that some of them possessed more than savage knowledge, and better than

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than savage manners. But instead of going on to further perfection, as the theory of modern philosophers would lead us to suppose, we find that mankind degenerated in a most astonishing degree; the causes of which we have already in part developed in the article POLYTHEISM, N° 4, &c.

This early degeneracy of the human race, or their sudden progress towards ignorance and savagism, appears to lead to an important consequence. If men, so very soon after their creation, possessing, as we have seen they did, a considerable share of knowledge and of civilization, instead of improving in either, degenerated in both respects, it would not appear that human nature has that strong propensity to refinement which many philosophers imagine; or that, had all men been originally savage, they would have civilized themselves by their own exertions.

Of the ages before the flood we have no certain account anywhere but in Scripture; where, though we find mankind represented as very wicked, we have no reason to suppose them to have been absolute savages. On the contrary, we have much reason, from the short account of Moses, to conclude that they were far advanced in the arts of civil life. Cain, we are told, built a city; and two of his early descendants invented the harp and organ, and were artificers in brass and iron. Cities are not built, nor musical instruments invented, by savages, but by men highly cultivated: and surely we have no reason to suppose that the righteous posterity of Seth were behind the apostate descendants of Cain in any branch of knowledge that was really useful. That Noah and his family were far removed from savagism, no one will controvert, who believes that with them was made a new covenant of religion; and it was unquestionably their duty, as it must otherwise have been their wish, to communicate what knowledge they possessed to their posterity. Thus far then every consistent Christian, we think, must determine against original and universal savagism.

In the preliminary discourse to Sketches of the History of Man, Lord Kames would infer, from some facts which he states, that many pairs of the human race were at first created, of very different forms and natures, but all depending entirely on their own natural talents. But to this statement he rightly observes, that the Mosaic account of the Creation opposes insuperable objections. "Whence then (says his Lordship) the degeneracy of all men into the savage state? To account for that dismal catastrophe, mankind must have suffered some dreadful convulsion." Now, if we mistake not, this is taking for granted the very thing to be proved. We deny that at any period since the creation of the world, *all* men were sunk into the state of savages; and that they were, no proof has yet been brought, nor do we know of any that can be brought, unless our fashionable philosophers choose to prop their theories by the buttress of Sanchoniatho's Phœnician cosmogony. (See SANCHONIATHO). His Lordship, however, goes on to say, or rather to *suppose*, that the confusion at Babel, &c. was this dreadful convulsion: For, says he, "by confounding the language of men, and scattering them abroad upon the face of all the earth, they were rendered savages." Here again we have a positive assertion, without the least shadow of proof; for it does not at all appear that the confusion of language, and the scattering abroad of the people, was a circumstance such as could induce universal savagism. There is no reason to think that all the men then alive were engaged in building the tower of Babel; nor does it appear from the Hebrew original that the language of those who were engaged in it was so much changed as the reader is apt to infer from our English version. (See PHILOLOGY, N° 8—16.)—That the builders were *scattered*, is indeed certain; and if any of them were driven, in very small tribes, to a great distance from their brethren, they would in process of time inevitably become savages. (See POLYTHEISM, N° 4—6. and LANGUAGE, N° 7.). But it is evident, from the Scripture account of the peopling of the earth, that the descendants of Shem and Japheth were not scattered over the face of all the earth, and that therefore they could not be rendered savage by the catastrophe at Babel. In the chapter which relates that wonderful event, the generations of Shem are given in order down to Abram; but there is no indication that they had suffered with the builders of the tower, or that any of them had degenerated into the state of savages. On the contrary, they appear to have possessed a considerable degree of knowledge; and if any credit be due to the tradition which represents the father of Abraham as a statuary, and himself as skilled in the science of astronomy, they must have been far advanced in the arts of refinement. Even such of the posterity of Ham as either emigrated, or were driven from the plain of Shinar in large bodies, so far from sinking into savagism, retained all the accomplishments of their antediluvian ancestors, and became afterwards the instructors of the Greeks and Romans. This is evident from the history of the Egyptians and other eastern nations, who in the days of Abraham were powerful and highly civilized. And that for many ages they did not degenerate into barbarism, is apparent from its having been thought to exalt the character of Moses,—that he was learned in all the wisdom of the Egyptians, and from the wisdom of Solomon having been said to excel all the wisdom of the east country and of Egypt.

Thus decided are the Scriptures of the Old Testament against the universal prevalence of savagism in that period of the world; nor are the most authentic pagan writers of antiquity of a different opinion. Moschus the Phœnician, * Democritus, and Epicurus, appear to be the first champions of the savage state; and they are followed by a numerous body of poets and rhapsodists, among the Greeks and Romans, who were unquestionably devoted to fable and fiction. The account which they have given of the origin of man, the reader will find in another place (see THEOLOGY, Part I. sect. I.): But we hardly think that he will employ it in support of the fashionable doctrine of original savagism. Against the wild reveries of this school are posted all the leaders of the other sects, Greeks and Barbarians: the philosophers of both Academies, the sages of the Italian and Alexandrian schools; the Magi of Persia; the Bramins of India, and the Druids of Gaul, &c. The testimony of the early historians among all the ancient nations, indeed, who are avowedly fabulists, is very little to be depended on, and has been called in question by the most judicious writers of Pagan antiquity. (See *Plut. Vita Thes. sub init.*; *Thucyd.* l. i. cap. 1.; *Strabo*, l. 11. p. 507.; *Livy Pref.* and *Varro ap. August. de Civ. Dei.*)

* *Strabo*, lib. xvii. *Diog. Laert. Vita Democ. et Vita Epicuri.*

Savage.

Dei.) The more populous and extensive kingdoms and societies were civilized at a period prior to the records of profane history: the presumption, therefore, without taking revelation into the account, certainly is, that they were civilized from the beginning. This is rendered further probable from other circumstances. To account for their system, the advocates of savagism are obliged, as we have seen, to have recourse to numerous suppositions. They imagine that since the creation dreadful convulsions have happened which have spread ruin and devastation over the earth, which have destroyed learning and the arts, and brought on savagism by one sudden blow. But this is reasoning at random, and without a vestige of probability: for the only convulsion that can be mentioned is that at Babel, which we have already shown to be inadequate.

Further, it does not appear that any people who were once civilized, and in process of time had degenerated into the savage or barbarous state, have ever recovered their pristine condition without foreign aid. From whence we conclude, that man, once a savage, would never have raised himself from that hopeless state. This appears evident from the history of the world; for that it requires strong incitements to keep man in a very high state of knowledge and civilization, is evident from what we know of the numerous nations which were famed in antiquity, but which are now degenerated in an astonishing degree. That man cannot, or, which is the same thing, has not risen from barbarism to civilization and science by his own efforts and natural talents, appears further from the following facts. The rudiments of all the learning, religion, laws, arts, and sciences, and other improvements that have enlightened Europe, a great part of Asia, and the northern coast of Africa, were so many rays diverging from two points, on the banks of the Euphrates and the Nile. In proportion as nations receded from these two sources of humanity and civilization, in the same proportion were they more and more immersed in ignorance and barbarism. The Greeks had made no progress towards civilization when the Titans first, and afterwards colonies from Egypt and Phenicia, taught them the very elements of science and urbanity.* The aborigines of Italy were in the same state prior to the arrival of the Pelasgi, and the colonies from Arcadia and other parts of Greece. Spain was indebted for the first seeds of improvement to the commercial spirit of the Phenicians. The Gauls, the Britons, and the Germans, derived from the Romans all that in the early periods of their history they knew of science, or the arts of civil life, and so on of other nations in antiquity. The same appears to be the case in modern times. The countries which have been discovered by the restless and inquisitive spirit of Europeans have been generally found in the lowest state of savagism; from which, if they have emerged at all, it has been exactly in proportion to their connexion with the inhabitants of Europe. Even western Europe itself, when sunk in ignorance, during the reign of monkery, did not recover by the efforts of its own inhabitants. Had not the Greeks, who in the 15th century took refuge in Italy from the cruelty of the Turks, brought with them their ancient books, and taught the Italians to read them, we who are disputing about the origin of the savage state, and the innate powers of the human mind, had at this day been gross and ignorant savages ourselves, incapable of reasoning with accuracy upon any subject. That we have now advanced far before our masters is readily admitted; for the human mind, when put on the right track, and spurred on by emulation and other incitements, is capable of making great improvements: but between improving science, and emerging from savagism, every one perceives there is an immense difference.

* See *Titan.*

Lord Kames observes, that the people who inhabit a grateful soil, where the necessaries of life are easily procured, are the first who invent useful and ingenious arts, and the first who figure in the exercises of the mind. But the Egyptians and Chaldeans, who are thought to support this remark, appear from what we have seen to have derived their knowledge from their antediluvian progenitors, and not from any advantages of situation or strength of genius. Besides, the inhabitants of a great part of Africa, of North and South America, and of many of the islands lately discovered, live in regions equally fertile, and equally productive of the necessaries of life, with the regions of Chaldea and Egypt; yet these people have been savages from time immemorial, and continue still in the same state. The Athenians, on the other hand, inhabited the most barren and ungrateful region of Greece, while their perfection in the arts and sciences has never been equalled. The Norwegian colony which settled in Iceland about the beginning of the 8th century, inhabited a most bleak and barren soil, and yet the fine arts were eagerly cultivated in that dreary region when the rest of Europe was sunk in ignorance and barbarism. Again, there are many parts of Africa, and of North and South America, where the soil is neither so luxuriant as to beget indolence, nor so barren and ungrateful as to depress the spirits by labour and poverty; where, notwithstanding, the inhabitants still continue in an uncultured state. From all which, and from numerous other instances which our limits permit us not to bring forward, we infer that some external influence is necessary to impel savages towards civilization; and that in the history of the world, or the nature of the thing, we find no instance of any people emerging from barbarism by the progressive efforts of their own genius. On the contrary, as we find, in societies highly cultivated and luxurious, a strong tendency to degenerate, so in savages we not only find no mark of tendency to improvement, but rather a rooted aversion to it. Among them, indeed, the social appetite never reached beyond their own horde. It is, therefore, too weak and too confined to dispose them to unite in large communities; and of course, had all mankind been once in the savage state, they never could have arrived at any considerable degree of civilization.

Instead of trusting to any such natural progress, as is contended for, the Providence of Heaven, in pity to the human race, appears at different times, and in different countries, to have raised up some persons endowed with superior talents, or, in the language of poetry, some heroes, demi-gods, or god-like men, who having themselves acquired some knowledge in nations already civilized, by useful inventions, legislation, religious institutions, and moral arrangements, sowed the first seeds of civilization among the hordes of wandering disunited barbarians. Thus we find the Chinese look up to their Fohee, the Indians to Brahma, the Persians

to Zoroaster, the Chaldeans to Oanes, the Egyptians to Thoth, the Phenicians to Melicerta, the Scandinavians to Odin, the Italians to Janus, Saturn, and Picus, and the Peruvians to Manco. In later times, and almost within our own view, we find the barbarous nations of Russia reduced to some order and civilization by the astonishing powers and exertions of Peter the Great. The endeavours of succeeding monarchs, and especially of Catharine II. have powerfully contributed to the improvement of this mighty empire. In many parts of it, however, we still find the inhabitants in a state very little superior to savagism; and through the most of it, the lower, and perhaps the middling orders, appear to retain an almost invincible aversion to all further progress; * a fact which, when added to numerous others of a similar nature which occur in the history of the world, seems to prove indisputably, that there is no such natural propensity to improvement in the human mind as we are taught by some authors to believe. The origin of savagism, if we allow mankind to have been at first civilized, is easily accounted for by natural means: The origin of civilization, if at any period the whole race were savages, cannot, we think, be accounted for otherwise than by a miracle, or repeated miracles.

* See Russia.

To many persons in the present day, especially, the doctrine we have now attempted to establish will appear very humiliating; and perhaps it is this alone that has prevented many from giving the subject so patient a hearing as its importance seems to require. It is a fashionable kind of philosophy to attribute to the human mind very preeminent powers: which so flatter our pride, as in a great measure, perhaps, to pervert our reason, and blind our judgment. The history of the world, and of the dispensations of God to man, are certainly at variance with the popular doctrine respecting the origin of civilization: for if the human mind be possessed of that innate vigour which that doctrine attributes to it, it will be extremely difficult to account for those numerous facts which seem with irresistible evidence to proclaim the contrary—for that unceasing care with which the Deity appears to have watched over us—and for those various and important revelations He has vouchsafed to us. Let us rejoice and be thankful that we are men, and that we are Christians; but let not a vain philosophy tempt us to imagine that we are angels or gods.

Savage Island, one of the small islands in the South sea, lying in S. Lat. 19. 1. W. Long. 169. 37. It is about seven leagues in circuit, of a good height, and has deep water close to its shores. Its interior parts are supposed to be barren, as there was no soil to be seen upon the coast; the rocks alone supplying the trees with humidity. The inhabitants are exceedingly warlike and fierce, so that Captain Cook could not have any intercourse with them.

SAVANNA-LA-MAR, a town of Jamaica, situated in the county of Cornwall in that island.—It is the county town, where the assize courts are held. This town was almost totally destroyed in 1781 by an earthquake and inundation, when many of the inhabitants perished. It has now an elegant court-house, and contains about one hundred other houses. It belongs to Westmoreland parish, in which are 89 sugar-estates, 106 other estates, and 18,000 slaves.

SAVANNAH, formerly the capital of Georgia in North America, situated on a river of the same name, and 17 miles from its mouth, in W. Long. 80. 20. N. Lat. 32. 0. This town is regularly built in form of a parallelogram.

SAVARY, James, an eminent French writer on the subject of trade, was born at Doue, in Anjou, in 1622. Being bred to merchandise, he continued in trade until 1658; when he left off the practice, to cultivate the theory. He had married in 1650; and in 1660, when the king declared a purpose of assigning privileges and pensions to such of his subjects as had twelve children alive, Mr Savary was not too rich to put in his claim to the Royal bounty. He was afterwards admitted of the council for the reformation of commerce; and the orders which passed in 1670 were drawn up by his instructions and advice. He wrote *Le Parfait Negociant*, 4to; and, *Avis et conseils sur les importantes matieres du Commerce*, in 4to. He died in 1690; and out of 17 children whom he had by one wife, left 11. Two of his sons, James and Philemon Lewis, laboured jointly on a great work, *Dictionnaire Universelle du Commerce*, 2 vols. folio. This work was begun by James who was inspector-general of the manufactures at the custom-house, Paris; who called in the assistance of his brother Philemon Lewis, although a canon of the Royal church of St Maur; and by his death left him to finish it. This work appeared in 1723, and Philemon afterwards added a third supplemental volume to the former. Postlethwayte's English Dictionary of Trade and Commerce is a translation, with considerable improvements, from Savary.

SAVARY, an eminent French traveller and writer, was born at Vitre, in Brittany, about the year 1748. He studied with applause at Rennes, and in 1776 travelled into Egypt, where he remained almost three years. During this period he was wholly engaged in the study of the Arabian language, in searching out antient monuments, and in examining the national manners. After making himself acquainted with the knowledge and philosophy of Egypt, he visited the islands in the Archipelago, where he spent 18 months. On his return to France, in 1780, he published, 1. A Translation of the Koran, with a short Life of Mahomet, in 1783, 2 vols. 8vo. 2. The Morality of the Koran, or a collection of the most excellent maxims in the Koran; a work extracted from his translation, which is esteemed both elegant and faithful. 3. Letters on Egypt, in 3 vols. 8vo, in 1785. In these the author makes his observations with accuracy, paints with vivacity, and renders interesting every thing he relates. His descriptions are in general faithful, but are perhaps in some instances too much ornamented. He has been justly censured for painting modern Egypt and its inhabitants in too high colours. These letters, however, were bought up by the curious public, and read with pleasure and advantage. Encouraged by this flattering reception, he prepared his letters upon Greece. He died soon after at Paris of a malady contracted from too intense application. A sensible obstruction in the right lobe of the liver had made a decisive progress, which the return of summer, some simple medicines, a strict regimen, and travelling, seemed to remove.

On his return into the country adjacent to Paris, his health however was still doubtful; for it is well known

known that when the organization of one of the viscera has been much deranged, deep traces of it will ever remain. His active mind, however, made him regardless of his health, and he conceived it his duty to profit by those appearances of recovery which he experienced at the close of the summer and the beginning of autumn, to put into order his travels into the islands of the Archipelago, intended as a continuation of his letters on Egypt. His warmth of temper was exasperated by some lively criticisms which had been made on his former productions, and he gave himself up to study with a degree of activity of which the consequences were sufficiently obvious. An obstruction in the liver again took place, and made a new progress; his digestion became extremely languid; sleep quite forsook him, both by night and by day; a dry and troublesome cough came on; his face appeared bloated, and his legs more and more inflamed. The use of barley-water and cream of tartar still however promoted, in some degree, the urinary secretions, and afforded some little glimmering of hope. In this situation he returned to Paris in the beginning of the year 1788, to attend to the publication of his new work concerning the islands of the Archipelago, particularly the isle of Candia. He had then all the symptoms of a dangerous dropsy, which became still more alarming from the very exhausted state of the viscera. The right lobe of the liver was extremely hard and sensible. The patient had shiverings without any regular returns, and his strength was undermined by a hectic fever. At the same time still more uneasy symptoms took place, those of a dropsy in the chest; but the circumstances which destroyed all hope, and announced his approaching dissolution, were a severe pain in the left side, with a very troublesome cough, and a copious and bloody expectoration (*in hepaticis*, says Hippocrates, *sputum cruentum mortiferum*); his respiration became more and more difficult; his strength was exhausted, and his death took place on the 4th of February 1788, attended with every indication of the most copious overflowing in the chest, and of an abscess in the liver.—Thus was destroyed, in the vigour of his age, an author whose character and talents rendered him worthy of the happiest lot.

Mr Savary's genius was lively and well cultivated; his heart warm and benevolent; his imagination vigorous; his memory retentive. He was cheerful and open; and had so great a talent for telling a story, that his company was not less agreeable than instructive. He did not mingle much with the world, but was satisfied with performing well the duties of a son, of a brother, and of a friend.

SAUCISSE, or Saucisson, in mining, is a long pipe or bag, made of cloth well pitched, or sometimes of leather, of about an inch and a half diameter, filled with powder, going from the chamber of the mine to the entrance of the gallery. It is generally placed in a wooden pipe called an *auget*, to prevent its growing damp. It serves to give fire to mines, caissons, bomb-chests, &c.

Saucisson, is likewise a kind of fascine, longer than the common ones; they serve to raise batteries and to repair breaches. They are also used in making epaulements, in stopping passages, and in making traverses over a wet ditch, &c.

SAVE, a river of Germany, which has its source in Upper Carniola, on the frontiers of Carinthia. It runs through Carniola from west to east, afterwards separates Sclavonia from Croatia, Bosnia, and part of Servia, and then falls into the Danube at Belgrade.

SAVENDROOG, a strong fortress of Hindostan, in the Mysore kingdom. It is situated on the summit of a vast rock, measuring about half a mile in perpendicular height, its base being upwards of eight miles in circumference, and divided by a chasm at the top, by which it is formed into two hills, each having a peculiar kind of defence. They answer the purpose of two citadels which are capable of being maintained independent of the lower works, which are remarkably strong. It was, however, taken by the gallantry of British troops in the year 1791, after a siege of seven days continuance. It is 18 miles west of Bangalore. See India, N° 167.

SAVER-krout. See Kroute.

SAVERNAKE-Forest, is situated near Marlborough in Wiltshire, and is 12 miles in circumference, well stocked with deer, and delightful from the many vistas cut through the woods and coppices with which it abounds. Eight of these vistas meet, like the rays of a star, in a point near the middle of the forest, where an octagon tower is erected to correspond with the vistas; through one of which is a view of Tottenham Park, Lord Ailesbury's seat, a stately edifice erected after the model, and under the direction, of our modern Vitruvius, the earl of Burlington, who to the strength and convenience of the English architecture has added the elegance of the Italian.

SAVILE, Sir George, afterwards Marquis of Halifax, and one of the greatest statesmen of his time, was born about the year 1630; and some time after his return from his travels was created a peer, in consideration of his own and his father's merits. He was a strenuous opposer of the bill of exclusion; but proposed such limitations of the duke of York's authority, as should disable him from doing any harm either in church or state, as the taking out of his hands all power in ecclesiastical matters, the disposal of the public money, and the power of making peace and war; and lodging these in the two houses of parliament. After that bill was rejected in the house of lords, he pressed them, though without success, to proceed to the limitation of the duke's power; and began with moving, that during the king's life he might be obliged to live five hundred miles out of England. In August 1682 he was created a marquis, and soon after made privy-seal. Upon King James's accession, he was made president of the council; but on his refusal to consent to the repeal of the test, he was dismissed from all public employments. In that assembly of the lords which met after King James's withdrawing himself the first time from Whitehall, the marquis was chosen their president; and upon the king's return from Feversham, he was sent, together with the earl of Shrewsbury and Lord Delamere, from the prince of Orange, to order his majesty to quit the palace at Whitehall. In the convention of parliament he was chosen speaker of the house of lords, and strenuously supported the motion for the vacancy of the throne, and the conjunctive sovereignty of the prince and princess; upon whose accession he was again made privy seal. Yet, in 1689, he quitted the court, and became a zealous opposer of the measures of government till his death, which happened in April 1695. The Rev. Mr Grainger

Grainger observes, that "he was a person of unsettled principles, and of a lively imagination, which sometimes got the better of his judgment. He would never lose his jest, though it spoiled his argument, or brought his sincerity or even his religion in question. He was deservedly celebrated for his parliamentary talents; and in the famous contest relating to the bill of exclusion was thought to be a match for his uncle Shaftsbury. The pieces he has left us show him to have been an ingenious, if not a masterly writer; and his *Advice to a Daughter* contains more good sense in fewer words than is, perhaps, to be found in any of his contemporary authors." His lordship also wrote, The Anatomy of an Equivalent; a Letter to a Dissenter; a Rough Draught of a New Model at Sea; and Maxims of State; all which were printed together in one volume 8vo.—Since these were also published under his name, the Character of King Charles II. 8vo; the Character of Bishop Burnet, and Historical Observations upon the reigns of Edward I. II. III. and Richard II. with Remarks upon their faithful Counsellors and false Favourites.

SAVILLE, Sir Henry, a learned Englishman, was the second son of Henry Saville, Esq. and was born at Bradley, near Halifax, in Yorkshire, November the 30th, 1549. He was entered of Merton College, Oxford, in 1561, where he took the degrees in arts, and was chosen fellow. When he proceeded master of arts in 1570, he read for that degree on the Almagest of Ptolemy, which procured him the reputation of a man eminently skilled in mathematics and the Greek language; in the former of which he voluntarily read a public lecture in the university for some time.

In 1578 he travelled into France and other countries; where, diligently improving himself in all useful learning, in languages, and the knowledge of the world, he became a most accomplished gentleman. At his return, he was made tutor in the Greek tongue to Queen Elizabeth, who had a great esteem for him.

In 1585 he was made warden of Merton College, which he governed 36 years with great honour, and improved it by all the means in his power.—In 1596 he was chosen provost of Eton College; which he filled with many learned men.—James I. upon his accession to the crown of England, expressed a great regard for him, and would have preferred him either in church or state; but Saville declined it, and only accepted the ceremony of knighthood from the King at Windsor in 1604. His only son Henry dying about that time, he thenceforth devoted his fortune to the promoting of learning. Among other things, in 1619, he founded, in the university of Oxford, two lectures, or professorships, one in geometry, the other in astronomy; which he endowed with a salary of 160*l.* a year each, besides a legacy of 600*l.* to purchase more lands for the same use. He also furnished a library with mathematical books, near the mathematical school, for the use of his professors; and gave 100*l.* to the mathematical chest of his own appointing: adding afterwards a legacy of 40*l.* a year to the same chest, to the university, and to his professors jointly. He likewise gave 120*l.* towards the new building of the schools, beside several rare manuscripts and printed books to the Bodleian library; and a good quantity of Greek types to the printing press at Oxford.

After a life thus spent in the encouragement and promotion of science and literature in general, he died at Eton College the 19th of February 1622, in the 73d year of his age, and was buried in the chapel there. On this occasion, the university of Oxford paid him the greatest honours, by having a public speech and verses made in his praise, which were published soon after in 4to, under the title of *Ultima Linea Savilii.*

The highest encomiums were bestowed on Saville by all the learned of his time: by Casaubon, Mercerus, Meibomius, Joseph Scaliger, and especially the learned Bishop Montague; who, in his *Diatribæ* upon Selden's History of Tythes, styles him, "that magazine of learning, whose memory shall be honourable amongst not only the learned, but the righteous, for ever." His works are,

1. Four Books of the Histories of Cornelius Tacitus, and the Life of Agricola; with Notes upon them, in folio, dedicated to Queen Elizabeth, 1581.—2. A View of certain Military Matters, or Commentaries concerning Roman Warfare, 1598.—3. *Rerum Anglicarum Scriptores post Bedam*, &c. 1596. This is a collection of the best writers of our English history; to which he added chronological tables at the end, from Julius Cæsar to William the Conqueror.—4. The Works of St Chrysostom, in Greek, in 8 vols folio, 1613. This is a very fine edition, and composed with great cost and labour. In the preface he says, "that having himself visited, about 12 years before, all the public and private libraries in Britain, and copied out thence whatever he thought useful to this design, he then sent some learned men into France, Germany, Italy, and the East, to transcribe such parts as he had not already, and to collate the others with the best manuscripts." At the same time, he makes his acknowledgements to several eminent men for their assistance; as Thuanus, Velserus, Schottus, Casaubon, Ducæus, Gruter, Hoeschelius, &c. In the 8th volume are inserted Sir Henry Saville's own notes, with those of other learned men. The whole charge of this edition, including the several sums paid to learned men, at home and abroad, employed in finding out, transcribing, and collating the best manuscripts, is said to have amounted to no less than 8000*l.* Several editions of this work were afterwards published at Paris.—5. In 1618 he published a Latin work, written by Thomas Bradwardin, archbishop of Canterbury, against Pelagius, entitled *De Causa Dei contra Pelagium, et de virtute causarum;* to which he prefixed the life of Bradwardin.—6. In 1621 he published a collection of his own Mathematical Lectures on Euclid's Elements, in 4to.—7. *Oratio coram Elizabetha Regina Oxoniæ habita*, anno 1592. Printed at Oxford in 1658, in 4to.—8. He translated into Latin King James's Apology for the Oath of Allegiance. He also left several manuscripts behind him, written by order of King James; all which are in the Bodleian library. He wrote notes likewise upon the margin of many books in his library, particularly Eusebius's Ecclesiastical History; which were afterwards used by Valesius, in his edition of that work in 1659.—Four of his letters to Camden are published by Smith, among Camden's Letters, 1691, 4to.

SAVIN, in *Botany*. See Juniperus, Botany *Index*.

SAVIOUR, an appellation peculiarly given to Jesus Christ,

Christ, as being the Messiah and Saviour of the world. See JESUS.

Order of St SAVIOUR, a religious order of the Romish church, founded by St Bridget, about the year 1345, and so called from its being pretended that our Saviour himself declared its constitution and rules to the foundress. According to the constitutions, this is principally founded for religious women who pay a particular honour to the holy virgin; but there are some monks of the order, to administer the sacrament and spiritual assistance to the nuns.

SAUL the son of Kish, of the tribe of Benjamin, was the first king of the Israelites. On account of his disobedient conduct, the kingdom was taken from his family, and given to David. See the First Book of Samuel.

SAUL, otherwise called Paul. See PAUL.

SAUMUR, a considerable town of France, in the department of Maine and Loire, with an ancient castle. The town is pleasantly situated on the Loire, across which is a long bridge, continued through a number of islands. It contained 9585 inhabitants in 1800. Saumur was anciently a most important pass over the river, and of consequence was frequently and fiercely disputed by either party, during the civil wars of France in the sixteenth century. The fortifications are of great strength; and Henry IV, on the reconciliation which took place between him and Henry III. near Tours in 1589, demanded that Saumur should be delivered to him, as one of the cities of safety. The castle overlooks the town and river. It is built on a lofty eminence, and has a venerable and magnificent appearance, and was lately used as a prison of state, where persons of rank were frequently confined. The kings of Sicily, and dukes of Anjou of the house of Valois, who descended from John king of France, often resided in the castle of Saumur, as it constituted a part of their Angevin dominions. E. Long. 0. 2. N. Lat. 47. 15.

SAUNDERS, a kind of wood brought from the East Indies, of which there are three kinds; white, yellow, and red. See PTEROCARPUS and SANTALUM, BOTANY *Index*.

SAUNDERSON, DR ROBERT, an eminent casuist, was born at Rotherham in Yorkshire on the 19th September 1587, and was descended of an ancient family. He attended the grammar-school at Rotherham, where he made such wonderful proficiency in the languages, that at 13 it was judged proper to send him to Lincoln college, Oxford. In 1608 he was appointed logic reader in the same college. He took orders in 1611, and was promoted successively to several benefices. Archbishop Laud recommended him to King Charles I. as a profound casuist; and that monarch, who seems to have been a great admirer of casuistical learning, appointed him one of his chaplains in 1631. Charles proposed several cases of conscience to him, and received so great satisfaction from his answers, that at the end of his month's attendance he told him, that he would wait with impatience during the intervening 11 months, as he was resolved to be more intimately acquainted with him, when it would again be his turn to officiate. The king regularly attended his sermons, and was wont to say, that "he carried his ears to hear other preachers, but his conscience to hear Mr Saunderson."

In 1642 Charles created him regius professor of divinity at Oxford, with the canonry of Christ church annexed: but the civil wars prevented him till 1646 from entering on the office; and in 1648 he was ejected by the visitors which the parliament had commissioned. He must have stood high in the public opinion; for in the same year in which he was appointed professor of divinity, both houses of parliament recommended him to the king as one of their trustees for settling the affairs of the church. The king, too, reposed great confidence in his judgment, and frequently consulted him about the state of his affairs. When the parliament proposed the abolition of the episcopal form of church-government as incompatible with monarchy, Charles desired him to take the subject under his consideration, and deliver his opinion. He accordingly wrote a treatise entitled, Episcopacy as established by law in England not prejudicial to regal power. At taking leave, the king advised him to publish Cases of Conscience: he replied, that "he was now grown old and unfit to write cases of conscience." The king said, "It was the simplest thing he ever had heard from him; for no young man was fit to be a judge, or write cases of conscience." Walton, who wrote the life of Dr Saunderson, informs us, that in one of these conferences the king told him (Dr Saunderson), or one of the rest who was then in company, that "the remembrance of two errors did much affect him; which were his assent to the earl of Strafford's death, and the abolishing of episcopacy in Scotland; and that if God ever restored him to the peaceable possession of his crown, he would prove his repentance by a public confession and a voluntary penance, by walking barefoot from the Tower of London, or Whitehall, to St Paul's church, and would desire the people to intercede with God for his pardon."

Dr Saunderson was taken prisoner by the parliament's troops and conveyed to Lincoln, in order to procure in exchange a Puritan divine named *Clark*, whom the king's army had taken. The exchange was agreed to, on condition that Dr Saunderson's living should be restored, and his person and property remain unmolested. The first of these demands was readily complied with: and a stipulation was made, that the second should be observed; but it was impossible to restrain the licentiousness of the soldiers. They entered his church in the time of divine service, interrupted him when reading prayers, and even had the audacity to take the common prayer book from him, and to tear it to pieces.

The honourable Mr Boyle, having read a work of Dr Saunderson's entitled *De juramenti obligatione*, was so much pleased, that he inquired at Bishop Barlow, whether he thought it was possible to prevail on the author to write Cases of Conscience, if an honorary pension was assigned him to enable him to purchase books, and pay an amanuensis. Saunderson told Barlow, "that if any future tract of his could be of any use to mankind, he would cheerfully set about it without a pension." Boyle, however, sent him a present of 50*l.*, sensible no doubt, that, like the other royalists, his finances could not be great. Upon this Saunderson published his book *De Conscientia*.

When Charles II. was reinstated in the throne, he recovered his professorship and canonry, and soon after was promoted to the bishopric of Lincoln. During the

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the two years and a half in which he possessed this new office, he spent a considerable sum in augmenting poor vicarages, in repairing the palace at Budgen, &c. He died January 29. 1662-3, in his 76th year.

He was a man of great acuteness and solid judgment. "That staid and well-weighed man Dr Saunderson (says Dr Hammond) conceives all things deliberately, dwells upon them discreetly, discerns things that differ exactly, passeth his judgment rationally, and expresses it aptly, clearly, and honestly." Being asked, what books he had read most? he replied, that "he did not read many books, but those which he did read were well chosen and frequently perused." These, he said, were chiefly three, Aristotle's Rhetoric, Aquinas's *Secunda Secundæ*, and Tully's works; especially his Offices, which he had not read over less than 20 times, and could even, in his old age, recite without book." He added, that "the learned civilian Dr Zouch had written *Elementa juris prudentiæ*, which he thought he could also say without book, and that no wise man could read it too often." He was not only conversant with the fathers and schoolmen, with casuistical and controversial divinity; but he was well acquainted with all the histories of the English nation, was a great antiquary, had searched minutely into records, and was well skilled in heraldry and genealogy.

It will now be proper to give a short account of his works. 1. In 1615 he published *Logicæ Artis Compendium*, which was the system of lectures he had delivered in the University when he was logic reader. 2. Sermons, amounting in number to 36, printed in 1681, folio, with the author's life by Walton. 3. Nine Cases of Conscience resolved; first collected in one volume, in 1678, 8vo. 4. *De juramenti obligatione*. This book was translated into English by Charles I. while a prisoner in the isle of Wight, and printed at London in 1665, 8vo. 5. *De Obligatione conscientiæ*. 6. Censure of Mr Antony Ascham his book of the confusions and revolutions of government. 7. *Pax Ecclesiæ*, concerning Predestination, or the five points. 8. Episcopacy, as established by law in England, not prejudicial to the regal power, in 1661. Besides these, he wrote two Discourses in defence of Usher's writings.

Saunderson, *Dr Nicholas*, was born at Thurlstone in Yorkshire in 1682, and may be considered as a prodigy for his application and success in mathematical literature in circumstances apparently the most unfavourable. He lost his sight by the smallpox before he was a year old. But this disaster did not prevent him from searching after that knowledge for which nature had given him so ardent a desire. He was initiated into the Greek and Roman authors at a free-school at Penniston. After spending some years in the study of the languages, his father (who had a place in the excise) began to teach him the common rules of arithmetic. He soon surpassed his father; and could make long and difficult calculations, without having any sensible marks to assist his memory. At 18 he was taught the principles of algebra and geometry by Richard West of Undoorbank, Esq. who, though a gentleman of fortune, yet being strongly attached to mathematical learning, readily undertook the education of so uncommon a genius. Saunderson was also assisted in his mathematical studies by Dr Nettleton. These two gentlemen read books to him and explained them. He was next sent to a private academy at Attercliff near Sheffield, where logic and metaphysics were chiefly taught. But these sciences not suiting his turn of mind, he soon left the academy. He lived for some time in the country without any instructor; but such was the vigour of his own mind, that few instructions were necessary: he only required books and a reader.

His father, besides the place he had in the excise, possessed also a small estate; but having a numerous family to support, he was unable to give him a liberal education at one of the universities. Some of his friends, who had remarked his perspicuous and interesting manner of communicating his ideas, proposed that he should attend the university of Cambridge as a teacher of mathematics. This proposal was immediately put in execution; and he was accordingly conducted to Cambridge in his 25th year, by Mr Joshua Dunn, a fellow-commoner of Christ's college. Though he was not received as a member of the college, he was treated with great attention and respect. He was allowed a chamber, and had free access to the library. Mr Whiston was at that time professor of mathematics; and as he read lectures in the way that Saunderson intended, it was naturally to be supposed he would view his project as an invasion of his office. But, instead of meditating any opposition, the plan was no sooner mentioned to him than he gave his consent. Saunderson's reputation was soon spread through the university. When his lectures were announced, a general curiosity was excited to hear such intricate mathematical subjects explained by a man who had been blind from his infancy. The subject of his lectures was the *Principia Mathematica*, the Optics, and *Arithmetica Universalis* of Sir Isaac Newton. He was accordingly attended by a very numerous audience. It will appear at first incredible to many that a blind man should be capable of explaining optics, which requires an accurate knowledge of the nature of light and colours; but we must recollect, that the theory of vision is taught entirely by lines, and is subject to the rules of geometry.

While thus employed in explaining the principles of the Newtonian philosophy, he became known to its illustrious author. He was also intimately acquainted with Halley, Cotes, De Moivre, and other eminent mathematicians. When Whiston was removed from his professorship, Saunderson was universally allowed to be the man best qualified for the succession. But to enjoy this office, it was necessary, as the statutes direct, that he should be promoted to a degree. To obtain this privilege the heads of the university applied to their chancellor the duke of Somerset, who procured the royal mandate to confer upon him the degree of master of arts. He was then elected Lucasian professor of mathematics in November 1711. His inauguration speech was composed in classical Latin, and in the style of Cicero, with whose works he had been much conversant. He now devoted his whole time to his lectures, and the instruction of his pupils. When George II, in 1728, visited the university of Cambridge, he expressed a desire to see Professor Saunderson. In compliance with this desire, he waited upon his majesty in the senate-house, and was there, by the king's command, created doctor of laws. He was admitted a member of the Royal Society in 1736.

Saunderson was naturally of a vigorous constitution;

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but having confined himself to a sedentary life, he at length became scorbutic. For several years he felt a numbness in his limbs, which, in the spring of 1739, brought on a mortification in his foot; and, unfortunately, his blood was so vitiated by the scurvy, that assistance from medicine was not to be expected. When he was informed that his death was near, he remained for a little space calm and silent; but he soon recovered his former vivacity, and conversed with his usual ease. He died on the 19th of April 1739, in the 57th year of his age, and was buried at his own request in the chancel at Boxworth.

He married the daughter of the reverend Mr Dickens, rector of Boxworth, in Cambridgeshire, and by her had a son and a daughter.

Dr Saunderson was rather to be admired as a man of wonderful genius and assiduity, than to be loved for amiable qualities. He spoke his sentiments freely of characters, and praised or condemned his friends as well as his enemies without reserve. This has been ascribed by some to a love of defamation; but perhaps with more propriety it has been attributed by others to an inflexible love of truth, which urged him upon all occasions to speak the sentiments of his mind without disguise, and without considering whether this conduct would please or give offence. His sentiments were supposed unfavourable to revealed religion. It is said, that he alleged he could not know God, because he was blind, and could not see his works; and that, upon this, Dr Holmes replied, "Lay your hand upon yourself, and the organization which you will feel in your own body will dissipate so gross an error." On the other hand, we are informed, that he had desired the sacrament to be given him on the evening before his death. He was, however, seized with a delirium, which rendered this impossible.

He wrote a system of algebra, which was published in 2 volumes 4to, at London, after his death, in the year 1740, at the expense of the university of Cambridge.

Dr Saunderson invented for his own use a Palpable Arithmetic; that is, a method of performing operations in arithmetic solely by the sense of touch. It consisted of a table raised upon a small frame, so that he could apply his hands with equal ease above and below. On this table were drawn a great number of parallel lines which were crossed by others at right angles; the edges of the table were divided by notches half an inch distant from one another, and between each notch there were five parallels; so that every square inch was divided into a hundred little squares. At each angle of the squares where the parallels intersected one another, a hole was made quite through the table. In each hole he placed two pins, a big and a small one. It was by the various arrangements of the pins that Saunderson performed his operations. A description of this method of making calculations by his table is given under the article Blind, N° 38, though it is there by mistake said that it was not of his own invention.

His sense of touch was so perfect, that he could discover with the greatest exactness the slightest inequality of surface, and could distinguish in the most finished works the smallest oversight in the polish. In the cabinet of medals at Cambridge he could single out the Roman medals with the utmost correctness; he could also perceive the slightest variation in the atmosphere. One day, while some gentlemen were making observations on the sun, he took notice of every little cloud that passed over the sun which could interrupt their labours. When any object passed before his face, even though at some distance, he discovered it, and could guess its size with considerable accuracy. When he walked, he knew when he passed by a tree, a wall, or a house. He made these distinctions from the different ways his face was affected by the motion of the air.

His musical ear was remarkably acute; he could distinguish accurately to the fifth of a note. In his youth he had been a performer on the flute; and he had made such proficiency, that if he had cultivated his talents in this way, he would probably have been as eminent in music as he was in mathematics. He recognised not only his friends, but even those with whom he was slightly acquainted, by the tone of their voice; and he could judge with wonderful exactness of the size of any apartment into which he was conducted.

Savonarola.

SAVONA, a large, handsome, and strong town of Italy, in the territory of Genoa, with two castles, and a bishop's see, and containing about 6000 inhabitants in 1800. It contains several handsome churches. It was taken by the king of Sardinia in 1746, at which time it had a capacious harbour; but the people of Genoa, being afraid that it would hurt their own trade, choked it up. It is seated on the Mediterranean sea, in a well-cultivated country, abounding in silk and all kinds of good fruit. E. Long. 8. 14. N. Lat. 44. 21.

SAVONAROLA, Jerome, a famous Italian monk, was born at Ferrara in 1452, and descended of a noble family. At the age of 22 he assumed the habit of a Dominician friar, without the knowledge of his parents, and distinguished himself in that order by his piety and ability as a preacher. Florence was the theatre where he chose to appear; there he preached, confessed, and wrote. He had address enough to place himself at the head of the faction which opposed the family of the Medici. He explained the Apocalypse, and there found a prophecy which foretold the destruction of his opponents. He predicted a renovation of the church, and declaimed with much severity against the clergy and the court of Rome. Alexander VI. excommunicated him, and prohibited him from preaching. He derided the anathemas of the pope: yet he forbore preaching for some time, and then resumed his employment with more applause than before. The pope and the Medici family then thought of attacking him with his own weapons. Savonarola having posted up a thesis as a subject of disputation, a Franciscan, by their instigation, offered to prove it heretical. The Franciscan was seconded by his brother friars, and Savonarola by his; and thus the two orders were at open war with each other. To settle the dispute, and to convince their antagonists of the superior sanctity of Savonarola, one of the Dominicans offered to walk through a fire; and in order to prove his wickedness, a Franciscan agreed to the same experiment. The multitude, eager to witness so extraordinary a spectacle, urged both parties to come to a decision; and the magistrates were constrained to give their consent. Accordingly, Saturday the 7th of April 1498 was fixed for the trial. On that day the champions appeared; but when they saw one another in cold blood, and beheld the wood in flames, they were seized with fear, and were very anxious to escape by any subterfuge the immi-

nent danger into which they had rashly thrown themselves. The Dominican pretended he could not enter the flames without the host in his hand. This the magistrates obstinately refused to allow; and the Dominican's fortitude was not put to the test. The Franciscans incited the multitude against their opponents, who accordingly assaulted their monastery, broke open the gates which were shut against them, and entered by force. Upon this, the magistrates thought it necessary to bring Savonarola to trial as an impostor. He was put to the torture and examined; and the answers which he gave fully evinced that he was both a cheat and a fanatic. He boasted of having frequent conversations with God, and found his brother friars credulous enough to believe him. One of the Dominicans, who had shared in his sufferings, affirmed, that he saw the Holy Ghost in the shape of a dove, with feathers of gold and silver, twice in one day alight on the shoulder of Savonarola and peck his ear; he pretended also that he had violent combats with demons. John Francis Pieus earl of Mirandula, who wrote his life, assures us, that the devils which infested the convent of the Dominicans trembled at the sight of Friar Jerome, and that out of vexation they always suppressed some letters of his name in pronouncing it. He expelled them from all the cells of the monastery. When he went round the convent sprinkling holy water to defend the friars from the insults of the demons, it is said the evil spirits spread thick clouds before him to prevent his passage.—At length, the pope Alexander VI. sent the chief of the Dominicans, with bishop Romolino, to degrade him from holy orders, and to deliver him up to the secular judges with his two fanatical associates. They were condemned to be hanged and burned on the 23d May 1498. Savonarola submitted to the execution of the sentence with great firmness and devotion, and without uttering a word respecting his innocence or his guilt. He was 46 years of age. Immediately after his death, his Confession was published in his name. It contained many extravagancies, but nothing to deserve so severe and infamous a punishment. His adherents did not fail to attribute to him the power of working miracles; and so strong a veneration had they for their chief, that they preserved with pious care any parts of his body which they could snatch from the flames. The earl of Mirandula, the author of his life, has described him as an eminent saint. He gravely informs us, that his heart was found in a river; and that he had a piece of it in his possession, which had been very useful in curing diseases, and ejecting demons. He remarks, that many of his persecutors came to a miserable end. Savonarola has also been defended by Father Quetif, Bzovius, Baron, and other religious Dominicans.

He wrote a prodigious number of books in favour of religion. He has left, 1. Sermons in Italian; 2. A Treatise entitled, *Triumphus Crucis*; 3. *Eruditorum Confessorum*, and several others. His works have been published at Leyden in 6 vols 12mo.

SAVORY. See SATUREIA, BOTANY *Index*.

SAVOUR. See TASTE.

SAVOY, a country belonging to the king of Sardinia, lying between France and Italy, and which takes its name from the Latin Sabaudia, altered afterwards to Saboia, and Sobojia.

This country was anciently inhabited by the Celtes, whose descendants therein were subdivided into the Allobroges, Nantuates, Veragri, Seduni, Salassi, Centrones, Garocelli, and some others of inferior note.—Of all these the Allobroges were the most considerable. The reduction of these tribes, in which Julius Cæsar had made a great progress, was completed under Augustus. Afterwards this country shared the fate of the rest of the western empire, and was overrun by the northern barbarians. The Burgundians held it a considerable time; but when or how it first became a distinct earldom under the present family, is what historians are not agreed about: thus much, however, is certain, that Amadæus I, who lived in the 12th century, was count of it. In 1416, Amadæus VIII. was created by the emperor Sigismund duke of Savoy; and Victor Amadæus first took the title of king of Sicily, and afterwards of Sardinia. See SARDINIA. Savoy was lately conquered by the French, and added to the republic as the 80th department. As this arrangement, though decreed by the convention to last for ever, may probably be of short duration, we shall write of the dutchy as of an independent state. Savoy, then, is bounded to the south by France and Piedmont; to the north by the lake of Geneva, which separates it from Switzerland; to the west by France; and to the east by Piedmont, the Milanese, and Switzerland; its greatest length being about 88 miles, and breadth about 76.

As it lies among the Alps, it is full of lofty mountains, which in general are very barren: many of the highest of them are perpetually covered with ice and snow. The summit of those called *Montagnes Maudites*, "the cursed mountains," are said to be more than two English miles in perpendicular height above the level of the lake of Geneva, and the lake itself is much higher than the Mediterranean. In some few of the valleys there is corn land and pasture, and a good breed of cattle and mules; and along the lake of Geneva, and in two or three other places, a tolerable wine is produced. Mount Senis or Cenis, between Savoy and Piedmont, over which the highway from Geneva to Turin lies, is as high, if not higher, than the *Montagnes Maudites*; but of all the mountains of the Alps, the highest is Mount Rochmelon, in Piedmont, between Fertiere and Novalese. The roads over these mountains are very tedious, disagreeable, and dangerous, especially as huge masses of snow, called by the Italians *avalanches*, and fragments of rocks, frequently roll down into them from the impending precipices. The way of travelling is either in sledges, chairs, or on the backs of mules: in some places the path on the brink of the precipices is so narrow, that there is but just room for a single person to pass. It begins to snow on these mountains commonly about the beginning of October. In summer, in the months of July, August, and September, many of them yield very fine grass, with a great variety of flowers and herbs; and others boxwood, walnuts, chesnuts, and pines. The height and different combinations of these mountains, their towering summits rising above one another and covered with snow, the many cataracts or falls of water, the noise and rapidity of the river Arc, the froth and green tincture of its water, the echoes of its numerous streams tumbling from cliff to cliff, form altogether a very romantic scene. These mountainous tracts, notwithstanding their height, are not altogether free from thunder in summer, and are also much exposed

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ed to thick clouds, which sometimes settle unexpectedly on them, and continue several days. There are some wolves among the thickets; and they abound with hares, rupicapras or chamois, and marmottes. In the lower parts of Savoy, there are also bears, wild boars, deer, and rabbits; and among the desolate mountains are found great quantities of rock-crystal. In the glacieres or ice-valleys, between the high mountains, the air is extremely cold, even in the months of July and August. The surface of these ice-valleys looks like a sea or lake, which, after being agitated by fierce and contrary winds, has been frozen all at once, interspersed with hideous cracks and chasms. The noise of these cracks, when first made by the heat of the noon-day sun, and reverberated by the surrounding rocks and mountains, is astonishing. The height of the impending mountains is such, that the sun's rays seldom reach the ice-valleys, except a few hours in the middle of summer. The avalanches or snow-balls, which the least concussion of the air will occasion, tumble down the mountains with amazing rapidity, continually increasing, and carrying all before them. People have been taken out alive, after being buried several days under them. The mountainous nature of this dutchy renders the plough an useless instrument of agriculture. The peasants break up the hungry soil with the pickaxe and spade, and to improve it carry up mould and dung in baskets. For the purpose of preserving it from drought in the spring and summer, they cut small reservoirs above it, the water of which may be let out at will; and to prevent the earth from giving way, break the declivity of the mountains by building walls on the side for its support, which frequently assume the appearance of ancient fortifications, and are a very pleasing deception to travellers. The Savoyards carry their better sort of cheese into Piedmont, as the flavour is much esteemed there; but they gain more by their skins of bears, chamois, and bouquetins (a species of the wild goat), or by the sale of grouse and pheasants, which they carry in great numbers to Turin.

The chief rivers are the Rhone, which, on the side of Geneva, separates Savoy from France; the Arve, which has some particles of gold in its sands; the Isere, the Seran, the Siers, and the Are. There are also a great many lakes in this country, which yield plenty of fish, but none of them are very large, together with medicinal and reciprocating springs and hot baths.

The language of the common people is a corrupt French; but the better sort, and those that live in the great cities, speak as good French as they do in Paris itself.

In their temper, however, and disposition, the Savoyards resemble the Germans more than the French, retaining still much of the old German honesty and simplicity of manners, which no doubt is partly owing to the poverty and barrenness of the country. To this also, joined to their longevity and the fruitfulness of their women, which are the effects of their cheerful disposition, healthy air, activity, temperance, and sobriety, it is owing that great numbers of them are obliged to go abroad in quest of a livelihood, which they earn, those at least who have no trades, by showing marmottes, cleaning shoes, sweeping chimneys, and the like. It is said, that there are generally about 18,000 of them, young and old, about Paris. In summer they lie in the streets, and in winter, 40, 50, or 60 of them lodge together in a room: they are so honest that they may be trusted to any amount. The children are often carried abroad in baskets before they are able to walk. In many villages of Savoy there is hardly a man to be seen throughout the year, excepting a month or two. Those that have families generally set out and return about the same season, when their wives commonly lie in; and they never fail to bring home some part of their small earnings. Some of them are such consummate masters of economy, that they set up shops and make fortunes, and others return home with a competency for the rest of their days. An old man is often despatched with letters, little presents, and some money, from the younger sort, to their parents and relations, and brings back with him fresh colonies, letters, messages, and news. The cultivation of their grounds, and the reaping and gathering in of the harvest and vintage, are generally left to the women and children; but all this is to be understood of the mountainous parts of Savoy. Great numbers of the mountaineers of both sexes are said to be lame and deformed; and they are much subject to a kind of wens, which grow about their throats, and very much disfigure them, especially the women; but that is the only inconvenience they feel from them.

The nobility of Savoy, and the other dominions of the king of Sardinia, labour under great hardships and restrictions, unheard of in other countries. A minute account of them will be found in Mr Keysler's Travels. In short, the king has left neither liberty, power, nor much property, to any but himself and the clergy, whose overgrown wealth he has also greatly curtailed.

No other religion is professed or tolerated in Savoy but that of the church of Rome. The decrees, however, of the council of Trent are not admitted; nor are the churches asylums for malefactors. This country was annexed to France in 1792, and remained in her possession till the peace of 1814. At the Congress of Vienna in 1805, the lordships of Chablais, Faucigny, and Genevrino, were separated from the Sardinian dominions.

Savoy, Saurin.

SAURIN, James, a celebrated preacher, was born at Nismes in 1677, and was the son of a protestant lawyer of considerable eminence. He applied to his studies with great success; but at length being captivated with a military life, he relinquished them for the profession of arms. In 1694 he made a campaign as a cadet in Lord Galloway's company, and soon afterwards obtained a pair of colours in the regiment of Colonel Renault which served in Piedmont. But the duke of Savoy having made peace with France, he returned to Geneva, and resumed the study of philosophy and theology under Turretin and other professors. In 1700 he visited Holland, then came to England, where he remained for several years, and married. In 1705 he returned to the Hague, where he fixed his residence, and preached with the most unbounded applause. To an exterior appearance highly prepossessing, he added a strong harmonious voice. The sublime prayer which he recited before his sermon, was uttered in a manner highly affecting. Nor was the attention excited by the prayer dissipated by the sermon: all who heard it were charmed; and those who came with an intention to critisise, were carried along with the preacher and forgot their design. Saurin had, however, one

fault

Saurin.

fault in his delivery; he did not manage his voice with sufficient skill. He exhausted himself so much in his prayer and the beginning of his sermon, that his voice grew feeble towards the end of the service. His sermons, especially those published during his life, are distinguished for justness of thought, force of reasoning, and an eloquent unaffected style.

The first time that the celebrated Abbadie heard him preach, he exclaimed, "Is it an angel or a man who speaks!" Saurin died on the 30th of December 1730, aged 53 years.

He wrote, 1. Sermons, which were published in 12 vols 8vo and 12mo; some of which display great genius and eloquence, and others are composed with negligence. One may observe in them the imprecations and the aversion which the Calvinists of that age were wont to utter against the Roman Catholics. Saurin was, notwithstanding, a lover of toleration; and his sentiments on this subject gave great offence to some of his fanatical brethren, who attempted to obscure his merit, and embitter his life. They found fault with him because he did not call the pope *Antichrist*, and the Romish church *the whore of Babylon*. But these prophetic metaphors, however applicable they may be, were certainly not intended by the benevolent religion of Jesus to be bandied about as terms of reproach; which would teach those to rail who use them; and irritate, without convincing, those to whom they were applied.

Saurin, therefore, while he perhaps interpreted these metaphors in the same way with his opposers, discovered more of the moderation of the Christian spirit. Five volumes of his sermons were published in his life, the rest have been added since his decease.

2. Discourses Historical, Critical, and Moral, on the most memorable Events of the Old and New Testament. This is his greatest and most valuable work. It was printed first in two volumes folio. As it was left unfinished, Beausobre and Roques undertook a continuation of it, and increased it to four volumes. It is full of learning: it is indeed a collection of the opinions of the best authors, both Christian and Heathen; of the philosophers, historians, and critics, on every subject which the author examines. 3. The State of Chistianity in France, 1725, 8vo. In this book he discusses many important points of controversy, and calls in question the truth of the miracle said to be performed on La Fosse at Paris. 4. An Abridgement of Christian Theology and Morality, in the form of a Catechism, 1722, 8vo. He afterwards published an abridgement of this work.

A Dissertation which he published on the Expediency of sometimes disguising the Truth, raised a multitude of enemies against him. In this discourse his plan was, to state the arguments of those who affirm that, in certain cases, it is lawful to disguise truth, and the answers of those who maintain the contrary. He does not determine the question, but seems, however, to incline to the first opinion. He was immediately attacked by several adversaries, and a long controversy ensued; but his doctrines and opinions were at length publicly approved of by the synods of Campen and of the Hague.

The subject of this controversy has long been agitated, and men of equally good principles have supported opposite sides. It would certainly be a dangerous maxim that falsehood can ever be lawful. There may, indeed, be particular cases, when the motives to it are of such a nature as to diminish its criminality in a high degree; but to lessen its guilt is a very different thing from justifying it by the laws of morality.

Saurin.

SAURIN, *Joseph*, a geometrician of the academy of Sciences at Paris, was born at Courtouson in the principality of Orange, in 1659. His father, who was a minister at Grenoble, was his first preceptor. He made rapid progress in his studies, and was admitted minister of Eure in Dauphiny when very young: but having made use of some violent expressions in one of his sermons, he was obliged to quit France in 1683. He retired to Geneva, and thence to Berne, where he obtained a considerable living. He was scarcely settled in his new habitation, when some theologians raised a persecution against him. Saurin, hating controversy, and disgusted with Switzerland, where his talents were entirely concealed, repaired to Holland. He returned soon after to France, and surrendered himself into the hands of Bossuet, bishop of Meaux, who obliged him to make a recantation of his errors. This event took place in 1690. His enemies, however, suspected his sincerity in the abjuration which he had made. It was a general opinion, that the desire of cultivating science in the capital of France had a greater effect in producing this change than religion. Saurin, however, speaks of the reformers with great asperity, and condemns them for going too far. "Deceived in my opinions concerning the rigid system of Calvin, I no longer regarded that reformer in any other light but as one of those extravagant geniuses who are carried beyond the bounds of truth. Such appeared to me in general the founders of the reformation; and that just idea which I have now obtained of their character has enabled me to shake off a load of prejudices. I saw in most of the articles which have separated them from us, such as the invocation of saints, the worship of images, the distinction of meats, &c. that they had much exaggerated the inevitable abuses of the people, and imputed these to the Romish church, as if sanctioned by its doctrines. Besides, that they have misrepresented those doctrines which were not connected with any abuse. One thing which surprised me much when my eyes began to open, was the false idea, though in appearance full of respect, for the word of God, which the reformers entertained of the perfection and perspicuity of the Holy Scriptures, and the manifest misinterpretation of passages which they bring to support that idea (for that misinterpretation is a point which can be proved). Two or three articles still raised some objections in my mind against the Romish church; to wit, Transubstantiation, the adoration of the sacrament, and the infallibility of the church. The adoration of the sacrament I considered as idolatry, and, on that account, removed from her communion. But soon after, the Exposition of the bishop of Meaux, a work which can never be sufficiently admired, and his Treatise concerning changes, reversed all my opinions, and rendered me an enemy to the Reformation." It is said also, that Saurin appeased his conscience by reading Poiret's *Cogitationes rationales*. This book is written with a view to vindicate the church of Rome from the charge of idolatry.

If it was the love of distinction that induced Saurin to return

return to the Romish church, he was not disappointed; for he there met with protection and support. He was favourably received by Louis XIV., obtained a pension from him, and was treated by the Academy of Sciences with the most flattering respect. At that time (1717), geometry formed his principal occupation. He adorned the *Journal des Sçavans* with many excellent treatises; and he added to the memoirs of the academy many interesting papers. These are the only works which he has left behind him. He died at Paris on the 29th December 1737, in his 78th year, of a fever. He married a wife of the family of Crousas in Switzerland, who bore him a son, Bernard Joseph, distinguished as a writer for the theatre.

Saurin was of a bold and impetuous spirit. He had that lofty deportment which is generally mistaken for pride. His philosophy was austere; his opinions of men were not very favourable; and he often delivered them in their presence: this created him many enemies. His memory was attacked after his decease. A letter was printed in the *Mercure Suisse*, said to be written by Saurin from Paris, in which he acknowledges that he had committed several crimes which deserved death. Some Calvinist ministers published in 1757 two or three pamphlets to prove the authenticity of that letter; but Voltaire made diligent enquiry, not only at the place where Saurin had been discharging the sacerdotal office, but at the deans of the clergy of that department. They all exclaimed against an imputation so opprobious. It must not, however, be concealed, that Voltaire, in the defence which he has published in his general history of Saurin's conduct, leaves some unfavourable impressions upon the reader's mind. He insinuates, that Saurin sacrified his religion to his interest; that he played upon Bossuet, who believed he had converted a clergyman, when he had only given a little fortune to a philosopher.

SAURURUS, a genus of plants belonging to the heptandria class; and in the natural method ranking under the second order, *Piperitæ*. See BOTANY *Index*.

SAUSSURE, HORACE BENEDICT DE, a celebrated naturalist, was a native of Geneva, and born in 1740. His father was an intelligent farmer, who lived at Conches, about half a league from Geneva, which no doubt contributed, in addition to his active education, to increase the physical strength of young Saussure, so requisite for a naturalist who intends to travel. He went daily to town for public instruction; and as he lived at the foot of a mountain, he frequently amused himself in ascending its steep and rugged sides. Thus environed by the phenomena of nature, and assisted by study, it was to be expected that he would soon conceive a predilection for natural history. Botany was his most early and favourite study, a taste which was powerfully encouraged by his local situation, and was the means of introducing him to the acquaintance of the great Haller, to whom he paid a visit in 1764, and was astonished at his intimate acquaintance with every branch of the natural sciences.

His attachment to the study of the vegetable kingdom was also increased by his connexion with Bonnet, who had married his aunt, and who put a proper estimate on the talents of his nephew. He was at that time engaged in the examination of the leaves of plants, to which Saussure was also induced to turn his attention, and published the result of his researches under the title of *Observations on the Bark of Leaves*. About this time the philosophical chair at Geneva became vacant, and was given to Saussure at the age of 21. Rewards conferred so early have been thought to extinguish in some a zeal for the increase of knowledge, but this was not the case with De Saussure, who taught physics and logic alternately with equal success. For physics, however, he had the greatest taste, as affording the means of prosecuting the study of chemistry, mineralogy, and other kindred sciences.

He now began his travels through the mountains, not for the purpose of studying, as formerly, their flowery decorations, but their constituent parts, and the disposition of their masses. During the first fifteen years of his professorship, he was alternately engaged in discharging the duties of his office, and in traversing the mountains in the vicinity of Geneva; and in this period his talents as a great philosopher were fully displayed. He extended his researches on one side to the banks of the Rhine, and on the other to the country of Piedmont. He travelled to Auvergne to examine the extinguished volcanoes, going afterwards to Paris, England, Holland, Italy and Sicily. It is proper to remark that these were not mere journeys, but were undertaken purely with the view of studying nature; and in all his journeys he was surrounded with such instruments as would be of service to him; together with plans of his procedure previously drawn up. Readily will our readers believe this great philosopher when he asserts, that he found such a method extremely beneficial.

The first volume of his travels through the Alps, which was published in 1779, contains a circumstantial description of the environs of Geneva, and an excursion as far as Chamouni, a village at the foot of Mont-Blanc. It contains a description of his *magnetometer*, with which philosophers will probably be delighted. In proportion as he examined mountains, the more was he persuaded of the importance of mineralogy; and that he might study it with advantage, he acquired a knowledge of the German language. In the last volumes of his travels, the reader will see how much new mineralogical knowledge he had acquired.

During the troubles which agitated Geneva in 1782, he made his beautiful and interesting experiments on hygrometry, which he published in 1783. This has been pronounced the best work that ever came from his pen, and completely established his reputation as a philosopher. De Saussure resigned his chair to his pupil and fellow labourer, Pictet, who discharged the duties of his office with reputation, although rendered difficult to him by succeeding so great a man. He projected a plan of reform in the education of Geneva, the design of which was to make young people acquainted with the natural sciences and mathematics at an early period, and wished that their physical education should not be neglected, for which purpose he proposed gymnastic exercises. This plan found admirers in the city, but the poverty of its funds was an obstacle in the way of any important innovation. It was dreaded too, that if established forms were changed, they might be altered for the worse.

The attention of De Saussure was not wholly confined to public education, for he superintended the education of his own two sons and a daughter, who have since

since proved themselves worthy of such a father and preceptor. In 1786, he published his second volume of travels, containing a description of the Alps around Mont-Blanc, the whole having been examined with the eye of a mineralogist, geologist, and philosopher. It contains some valuable experiments on electricity, and a description of his own electrometer, said to be the most perfect we have. To him we are indebted for a *cyanometer*, for measuring the degree of blueness of the heavens, which is found to vary according to the height of the observer; his *diaphanometer* for measuring the transparency of the atmosphere; and his *anemometer* for ascertaining the force of the winds. He founded the Society of Arts, to the operations of which Geneva is indebted for the state of prosperity it has reached within the last 30 years. Over that society he presided to the day of his death; and the preservation of it in prosperity constituted one of his fondest wishes.

In 1794, the health of this eminent man began rapidly to decline, and a severe stroke of the palsy almost deprived him totally of the use of his limbs. Such a condition was no doubt painful to such a man; but his intellects still preserved their original activity, and he prepared for the press the two last volumes of his travels, which appeared in 1796. They contain a great mass of new facts and observations, of the last importance to physical science. During his illness he published *Observations on the Fusibility of Stones by means of the Blow-pipe.* He was in general a Neptunian, ascribing the revolutions of our globe to water, and admitting the possibility of mountains having been thrown up by elastic fluids disengaged from the cavities of the earth. In the midst of his rapid decline he cherished the hopes of recovery; but his strength was exhausted; a languor succeeded the vigour which he had formerly enjoyed; his slow pronunciation did not correspond with the vivacity of his mind, and was a melancholy contrast to the pleasantness which he had formerly exhibited. He tried in vain to procure the re-establishment of his health; for all the remedies prescribed by the ablest physicians were wholly ineffectual. His mind afterwards lost its activity; and on the 22d of March 1799, he finished his mortal career, in the 59th year of his age, lamented by a family to whom he was dear,—by a country to which he had done honour,—and by Europe, the knowledge of which he had extended.

SAUVAGESIA, a genus of plants belonging to the pentandria class, and in the natural method ranking with those of which the order is doubtful. See Botany *Index.*

SAUVEUR, Joseph, an eminent French mathematician, born at La Fleche in 1653. He was absolutely dumb until he was seven years of age; and even then his organs of speech were not evolved so fully as to permit him to speak without great deliberation. Mathematics were the only studies he had any relish for, and these he cultivated with extraordinary success; so that he commenced teacher at 20 years of age, and was so soon in vogue, that he had Prince Eugene for his scholar. He became mathematical professor in the royal college in 1686; and ten years after was admitted a member of the Academy of Sciences. He died in 1716; and his writings, which consist rather of detached papers than of connected treatises, are all inserted in the Memoirs of the Academy of Sciences. He was twice married; and by the last wife had a son, who, like himself, was dumb for the first seven years of his life.

SAW, an instrument which serves to cut into pieces several solid matters; as wood, stone, ivory, &c.

The best saws are of tempered steel ground bright and smooth; those of iron are only hammer-hardened: hence the first, besides their being stiffer, are likewise found smoother than the last. They are known to be well hammered by the stiff bending of the blade; and to be well and evenly ground, by their bending equally in a bow.

The lapidaries, too, have their saw, as well as the workmen in mosaic; but of all mechanics, none have so many saws as the joiners, the chief of which are the following. The pit-saw, which is a large two-handed saw, employed for sawing timber in pits, and chiefly used by the sawers. The whip-saw, which has likewise two handles, used in sawing such large pieces as the hand-saw will not easily reach. The hand-saw is made to be used by an individual, of which there are different kinds, as the frame-saw, which is furnished with checks. By the twisted cords which pass from the upper parts of these checks, and the tongue in the middle of them, the upper ends are drawn close together, and the lower set further asunder. The tenon-saw, which being very thin, has a back to keep it from bending. The compass-saw, which is very small, and its teeth usually not set; its use is to cut a round, or any other compass-kerf, on which account the edge is made broad, and the back thin, that it may have a compass to turn in.

At an early period, the trunks of trees were split with wedges into as many and as thin pieces as possible; and if it were necessary to have them still thinner, they were hewn on both sides to the proper size. This simple and wasteful manner of making boards has been still continued in some places to the present day. Peter the Great of Russia endeavoured to put a stop to it, by forbidding hewn deals to be transported on the river Neva. The saw, however, though so convenient and beneficial, has not been able to banish entirely the practice of splitting timber used in building, or in making furniture and utensils; for we do not here speak of firewood; and indeed it must be allowed that this method is attended with peculiar advantages which that of sawing can never possess. The wood-splitters perform their work more expeditiously than sawers, and split timber is much stronger than that which has been sawn; for the fissure follows the grain of the wood, and leaves it whole; whereas the saw, which proceeds in the line chalked out for it, divides the fibres, and by these means lessens its cohesion and solidity. Split timber, indeed, turns out often crooked and warped; but for many purposes to which it is applied this is not injurious, and these faults may sometimes be amended. As the fibres, however, retain their natural length and direction, thin boards particularly, can be bent much better. This is a great advantage in making pipe staves, or sieve frames, which require still more art, and in forming various implements of a similar kind.

Our common saw, which requires only to be guided by the hand, however simple it may be, was not known to the inhabitants of America when they were subdued by the Europeans. The inventor of this instrument has been inserted in their mythology by the Greeks, with a

Saw || Saw-mills.

place, in which, among their gods, they honoured the greatest benefactors of the earliest ages. By some he is called Talus, and by others Perdix. None except Pliny make Dædalus the inventor; but Hardouin, in the passage where this occurs, reads Talus for Dædalus. Talus is the name of the inventor according to Diodorus Siculus, Apollodorus, and others. He was the son of Dædalus's sister, and was by his mother placed under the tuition of her brother, to be instructed in his art. Having found the jaw-bone of a snake, he employed it to cut through a small piece of wood; and by these means was induced to fabricate a similar instrument of iron, that is, to make a saw. This invention, by which labour is greatly facilitated, excited the envy of his master, and prompted him to put Talus privately to death. Being asked, when burying the body, what he was depositing in the earth, he replied, *a serpent*. This ambiguous answer discovered the murder; and thus a snake was the cause of the invention, of the murder, and of its being brought to light. By others the inventor is called Perdix, who is supposed to have been the son of a sister of Dædalus. Perdix did not employ the jaw-bone of a snake for a saw, but the back-bone of a fish, as is mentioned by Ovid.

The saws of the Grecian carpenters had the same form, and were made with equal ingenuity as the same instruments at present. This appears from a painting preserved among the antiquities of Herculaneum. Two genii are represented at the end of a bench, consisting of a long table resting on two four-footed stools; and the piece of wood to be sawn through is secured by cramps. The saw with which the genii are at work bears a striking resemblance to our frame-saw. It consists of a square frame, having a blade in the middle, the teeth of which are perpendicular to the plane of the frame. The piece of wood to be sawn extends beyond the end of the bench, and one of the workmen appears standing, and the other sitting on the ground. The arms in which the blade is fastened, have the same form as that given to them at present. In the bench are seen holes, in which the cramps holding the timber are stuck. They are shaped like the figure 7; and the ends of them reach below the boards which form the top of it.

Saw-fish. See PRISTIS, ICHTHYOLOGY *Index*.

Saw-Mills. The most beneficial improvement of the operation of sawing was the invention of saw-mills, which are driven either by water or by wind. Mills of the first kind were erected so early as the fourth century, in Germany, on the small river Ruer. The art of cutting marble with a saw is very ancient. According to Pliny, it was invented in Caria. Stones of the soap-rock kind, which are softer than marble, were sawn at that period; but it appears that the harder kinds of stone were also then sawn; for we are informed respecting the discovery of a building which was encrusted with cut agate, carnelian, lapis lazuli, and amethysts. There is, however, no account in any of the Greek or Roman writers of a mill for sawing wood; and as modern authors speak of saw-mills as new and uncommon, it appears that the oldest construction of them has been forgotten, or that some interesting improvement has made them appear entirely new.

Becher says that saw-mills were invented in the 17th century, which is a mistake; for when the infant Henry sent people to settle in the island of Madeira, discovered in 1420, he gave orders for saw-mills to be erected, for the purpose of sawing into deals the various species of excellent timber with which the island abounded, and which were afterwards exported to Portugal. There was a saw-mill in the city of Breslau about the year 1427, producing a yearly rent of three merks; and in 1490, the magistrates of Erfurth purchased a forest, in which they erected a saw-mill, besides renting another in the neighbourhood. The first saw-mill in Norway was erected about the year 1530. In the year 1552 there was a saw-mill erected at Joachimsthal, the property of a mathematician called Jacob Geusen. In 1555, the bishop of Ely, ambassador from Queen Mary of England to the court of Rome, having seen a saw-mill in the vicinity of Lyons, the writer of his travels gave a particular description of it. The first saw-mill was erected in Holland at Saardam in 1596, the invention of which is ascribed to Cornelius Cornelissen.

The first mill of this kind in Sweden was erected in the year 1653. At present, that kingdom possesses the largest perhaps ever constructed in Europe, where a water-wheel, 12 feet broad, drives at the same time 72 saws.

In England, saw-mills had at first a similar fate with printing in Turkey, the ribbon-loom in the dominions of the church, and the crane at Strasburg. When attempts were made to introduce them, they were violently opposed, because it was apprehended that the sawers would thus be deprived of the means of procuring subsistence. An opulent merchant in 1767 or 1768, by desire of the Society of Arts, caused a saw-mill to be erected at Limehouse, driven by wind; but it was demolished by the mob, and the damage was sustained by the nation, while some of the rioters were punished. This, however, was not the only mill of the kind then in Britain; for at Leith there was one driven by wind, some years before.

Saw-mills are very common in America, where the moving power is generally water Some have been constructed on a very extensive plan; one in particular, we have been informed, has been erected in the province of New Brunswick, in British America, for the purpose of cutting planks for the English market. This machine works 15 saws in one frame, and is capable, it is said, of cutting annually not fewer than 8,000,000 feet of timber.

The mechanism of a sawing-mill may be reduced to three principal things: the first, that the saw is drawn up and down as long as is necessary, by a motion communicated to the wheel by water: the second, that the piece of timber to be cut into boards is advanced by an uniform motion to receive the strokes of the saw; for here the wood is to meet the saw, and not the saw to follow the wood, therefore the motion of the wood and that of the saw ought immediately to depend the one on the other: the third, that where the saw has cut through the whole length of the piece, the whole machine stops of itself, and remains immoveable: lest having no obstacle to surmount, the moving power should turn the wheel with too great velocity, and break some part of the machine.

Saw-mills have been distinguished into two kinds, viz. those which have a reciprocating and those which have a rotatory motion.

Fig. 1.

Saw-mills. Plate cccclxix. fig. 1.

Fig. 1. represents the elevation of a reciprocating saw-mill. AA is the shaft or axle, upon which is fixed the wheel BB (of 17½ or 18 feet diameter), containing 40 buckets to receive the water by which it is impelled. CC a wheel fixed upon the same shaft containing 96 teeth, to drive the pinion N° 2. having 32 teeth, which is fastened upon an iron axle or spindle, having a coupling box on each end that turns the cranks, as DD, round: one end of the pole E is put on the crank, and its other end moves on a joint or iron bolt at F, in the lower end of the frame GG. The crank DD being turned round in the hole E, moves the frames GG up and down, and these having saws in them, by this motion cut the wood. The pinion, N° 2, may work two, three, or more cranks, and thus move as many frames of saws. N° 3. an iron wheel having angular teeth, which one end of the iron K takes hold of, while its other end rolls on a bolt in the lever HH. One end of this lever moves on a bolt at I, the other end may lie in a notch in the frame GG so as to be pushed up and down by it. Thus the catch K pulls the wheel round, while the catch L falls into the teeth and prevents it from going backwards. Upon the axle of N° 3. is also fixed the pinion N° 4. taking into the teeth the under edge of the iron bar, that is fastened upon the frame TT, on which the wood to be cut is laid: by this means the frame TT is moved on its rollers SS, along the fixed frame UU; and of course the wood fastened upon it is brought forward to the saws as they are moved up and down by reason of the turning round of the crank DD. VV, the machine and handle to raise the sluice when the water is to be let upon the wheel BB to give it motion. By pulling the rope at the longer arm of the lever M, the pinion N° 2. is put into the hold or grip of the wheel CC, which drives it; and by pulling the rope R, this pinion is cleared from the wheel. N° 5. a pinion containing 24 teeth, driven by the wheel CC, and having upon its axle a sheave, on which is the rope PP, passing to the sheave N° 6. to turn it round; and upon its axle is fixed the pinion N° 7. acting on the teeth in an iron bar upon the frame TT, to roll that frame backwards when empty. By pulling the rope at the longer arm of the lever N, the pinion N° 5. is put into the hold of the wheel CC; and by pulling the rope O it is taken off the hold. N° 8. a wheel fixed upon the axle N° 9. having upon its periphery angular teeth, into which the catch N° 10. takes; and being moved by the lever attached to the upper part of the frame G, it pushes the wheel N° 8. round; and the catch N° 11. falls into the teeth of the wheel, to prevent it from going backwards while the rope rolls in its axle, and drags the logs or pieces of wood in at the door Y, to be laid upon the moveable frames TT, and carried forward to the saws to be cut. The catches N° 10, 11. are easily thrown out of play when they are not wanted. The gudgeons in the shafts, rounds of the cranks, spindles, and pivots, should all turn round in eods or bushes of brass. Z, a door in one end of the mill-house at which the wood is conveyed out when cut. WW, walls of the mill-house. QQ, the couples or framing of the roof. XXX, &c. windows to admit light to the house.

Saw-mills for cutting blocks of stone, are generally, though not always, moved horizontally: the horizontal alternate motion may be communicated to one or more saws, by means of a rotatory motion, either by the use of cranks, &c. or in some such way as the following. Let the horizontal wheel ABDC (fig. 2.) drive the pinion O *p* N, this latter carrying a vertical pin P, at the distance of about one-third of the diameter from the centre. This pinion and pin are represented separately in fig. 3. Let the frame WSTV, carrying four saws, marked 1, 2, 3, 4, have wheels V, T, W, W, each running in a groove or rut, whose direction is parallel to the proposed direction of the saws; and let a transverse groove PR, whose length is double the distance of the pin P from the centre of the pinion, be cut in the saw frame to receive that pin. Then, as the great wheel revolves, it drives the pinion, and carries round the pin P: and this pin, being compelled to slide in the straight groove PR, while by the rotation of the pinion on which it is fixed its distance from the great wheel is constantly varying, causes the whole saw frame to approach to and recede from the great wheel alternately, while the grooves in which the wheels run confine the frame so as to move in the direction T *t*, V *v*. Other blocks of stone may be sawn at the same time by the motion of the great wheel, if other pinions and frames running off in the directions of the respective radii EB, EA, EC, be worked by the teeth at the quadrantal points B, A, and C. And the contrary efforts of these four frames and pinions will tend to soften down the jolts, and equalize the whole motion.

Saw-mills. Fig. 2. Fig. 3.

The same contrivance, of a pin fixed at a suitable distance from the centre of a wheel, and sliding in a groove, may serve to convert a reciprocating into a rotatory motion: but it will not be preferable to the common conversion by means of a crank.

When saws are used to cut blocks of stone into pieces having cylindrical surfaces, a small addition is made to the apparatus. See figs. 4. and 5. The saw, instead of being allowed to fall in a vertical groove as it cuts the block, is attached to a lever or beam FG, sufficiently strong; this lever has several holes pierced through it, and so has the vertical piece ED, which is likewise moveable towards either side of the frame in grooves in the top and bottom pieces AL, DM. Thus, the length KG of the radius can be varied at pleasure, to suit the curvature of NO; and as the saw is moved to and fro by proper machinery, in the direction CB, BC, it works lower and lower into the block, while, being confined by the beam FG, it cuts the cylindrical portion from the block P, as required.

Fig. 4. & 5.

When a completely cylindrical pillar is to be cut out of one block of stone, the first thing will be to ascertain in the block the position of the axis of the cylinder, then lay the block so that such axis shall be parallel to the horizon, and let a cylindrical hole of from one to two inches diameter be bored entirely through it. Let an iron bar, whose diameter is rather less than that of this tube, be put through it, having just room to slide freely to and fro as occasion may require. Each end of this bar should terminate in a screw, on which a nut and frame may be fastened: the nut frame should carry three flat pieces of wood or iron, each having a slit running along its middle nearly from one end to the other, and a screw and handle must be adapted to each slit: by these means the frame-work at each end of the bar may readily be so adjusted as to form equal isosceles or equilateral triangles; the iron bar will connect two cor-

Saw-mills.

responding angles of these triangles, the saw to be used two other corresponding angles, and another bar of iron or of wood the two remaining angles, to give sufficient strength to the whole frame. This construction, it is obvious, will enable the workmen to place the saw at any proposed distance from the hole drilled through the middle of the block; and then, by giving the alternating motion to the saw frame, the cylinder may at length be cut from the block, as required.

If it were proposed to saw a conic frustum from such a block, then let two frames of wood or iron be fixed to those parallel ends of the block which are intended to coincide with the bases of the frustum, circular grooves being previously cut in these frames to correspond with the circumferences of the two ends of the proposed frustum; the saw being worked in these grooves will manifestly cut the conic surface from the block. This, we believe, is the contrivance of Sir George Wright.

The best method of drilling the hole through the middle of the proposed cylinder seems to be this. On a carriage running upon four low wheels let two vertical pieces (each having a hole just large enough to admit the borer to play freely) be fixed two or three feet asunder, and so contrived that the pieces and holes to receive the borer may, by screws, &c. be raised or lowered at pleasure, while the borer is prevented from sliding to and fro by shoulders upon its bar, which are larger than the holes in the vertical pieces, and which, as the borer revolves, press against those pieces: let a part of the boring bar between the two vertical pieces be square, and a grooved wheel with a square hole of a suitable size be placed upon this part of the bar; then the rotatory motion may be given to the bar by an endless band which shall pass over this grooved wheel and a wheel of a much larger diameter in the same plane, the latter wheel being turned by a winch handle in the usual way. See *Boring of* Ordnance.

Circular saws, acting by a rotatory motion, have been long known in Holland, where they are used for cutting wood used in veneering. They were introduced into this country, we believe, by General Bentham, and are now used in the dock-yard at Portsmouth, and in a few other places: but they are not, as yet, so generally adopted as might be wished, considering how well they are calculated to abridge labour, and to accomplish with expedition and accuracy what is very tedious and irksome to perform in the usual way. Circular saws may be made to turn either in horizontal, vertical, or inclined planes; and the timber to be cut may be laid upon a plane inclined in any direction; so that it may be sawn by lines making any angle whatever, or at any proposed distance from each other. When the saw is fixed at a certain angle, and at a certain distance from the edge of the frame, all the pieces will be cut of the same size, without marking upon them by a chalked line, merely by causing them to be moved along, and keeping one side in contact with the side of the frame; for then, as they are brought one by one to touch the saw revolving on its axle, and are pressed upon it, they are soon cut through.

Mr Smart, of Ordnance-wharf, Westminster-bridge, has several circular saws, all worked by a horse in a moderate sized walk: one of these, intended for cutting and boring tenons used in this gentleman's hollow masts, is represented in fig. 6. NOPQR is a hollow frame, under which is part of the wheel-work of the horse-mill. —A, B, DC, E, F, are pulleys, over which pass straps or endless bands, the parts of which out of sight run upon the rim of a large vertical wheel: by means of this simple apparatus, the saws S, S′, are made to revolve upon their axles with an equal velocity, the same band passing round the pulleys D, C, upon those axles; and the rotatory motion is given to the borer G by the band passing over the pulley A. The board I is inclined to the horizon in an angle of about 30 degrees; the plane of the saw S′ is parallel to that of the board I, and about a quarter of an inch distant from it, while the plane of the saw S is vertical, and its lowest point at the same distance from the board I. Each piece of wood K, out of which the tenon is to be cut, is four inches long, an inch and a quarter broad, and 5-eighths of an inch thick. One end of such piece is laid so as to slide along the ledge at the lower part of the board I; and as it is pushed on, by means of the handle H, it is first cut by the saw S′, and immediately after by the saw S: after this the other end is put lowest, and the piece is again cut by both saws: then the tenon is applied to the borer G, and as soon as a hole is pierced through it, it is dropped into the box beneath. By this process, at least 30 tenons may be completed in a minute, with greater accuracy than a man could make *one* in a quarter of an hour, with a common hand-saw and gimblet. The like kind of contrivance may, by slight alterations, be fitted for many other purposes, particularly all such as may require the speedy sawing of a great number of pieces into exactly the same size and shape. *Gregory's Mechanics, II.*

Fig 6.

Saw-mill Saxe.

SAXE, Maurice count of, was born the 13th October 1696. He was the natural son of Frederic Augustus II. elector of Saxony, and king of Poland, and of the countess of Konigsmarc, a Swedish lady, celebrated both for her wit and beauty. He was educated along with Frederic Augustus the electoral prince, afterwards king of Poland. His infancy announced the future warrior. Nothing could prevail on him to apply to his studies but the promise of being allowed, after he had finished his task, to mount on horseback, or exercise himself with arms.

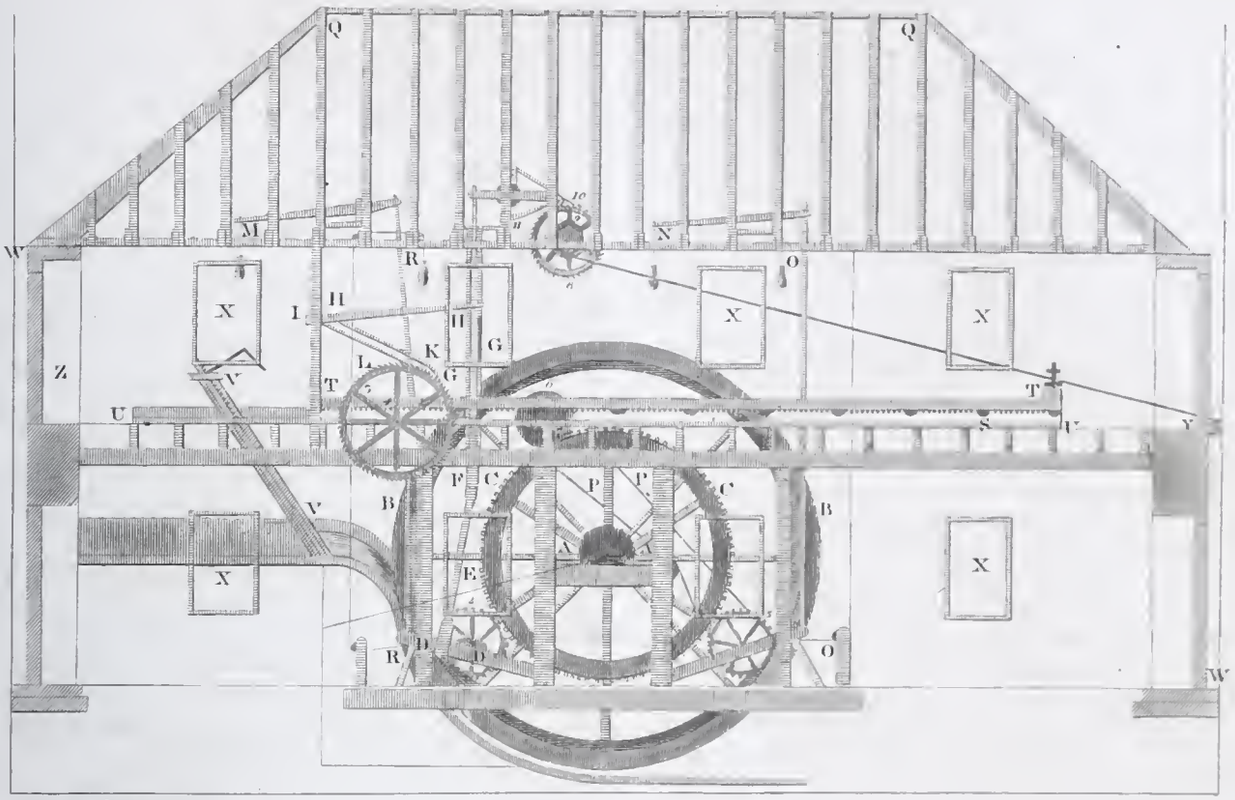
He served his first campaign in the army commanded by prince Eugene and the duke of Marlborough, when only twelve years old. He signalized himself at the sieges of Tournay and Mons, and particularly at the battle of Malplaquet. In the evening of that memorable day, he was heard to say, "I'm content with my day's work." During the campaign of 1710, Prince Eugene and the duke of Marlborough made many public encomiums on his merit. Next year the young count accompanied the king of Poland to the siege of Stralsund, the strongest place in Pomerania, and displayed the greatest intrepidity. He swam across the river in sight of the enemy, with a pistol in his hand. His valour shone no less conspicuously on the bloody day of Gaedelbusck, where he commanded a regiment of cavalry. He had a horse killed under him, after he had three times rallied his regiment, and led them on to the charge.

Soon after that campaign, his mother prevailed on him to marry the countess of Lubin, a lady both rich and beautiful. This union lasted but a short time. In 1721, the count procured a dissolution of the marriage;

SAW MILL.

PLATE CCCCLXIX.

Fig. 1.



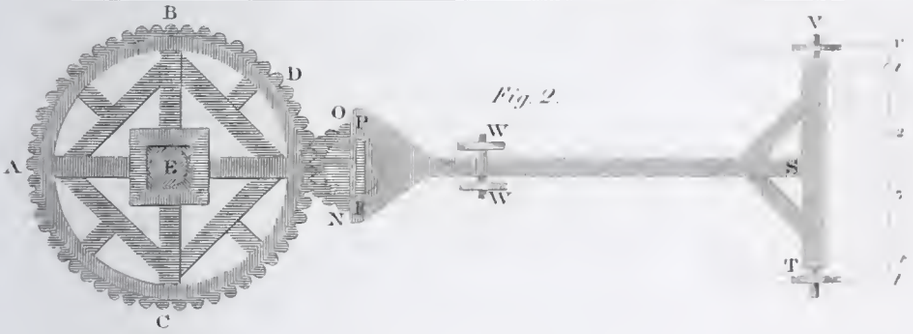


Fig. 2.

Fig. 3.

Fig. 4.

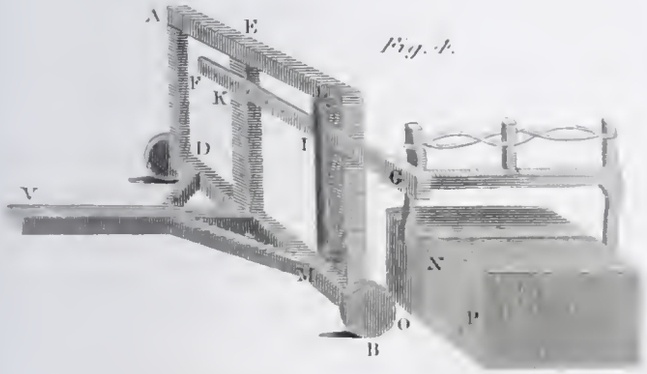


Fig. 6.

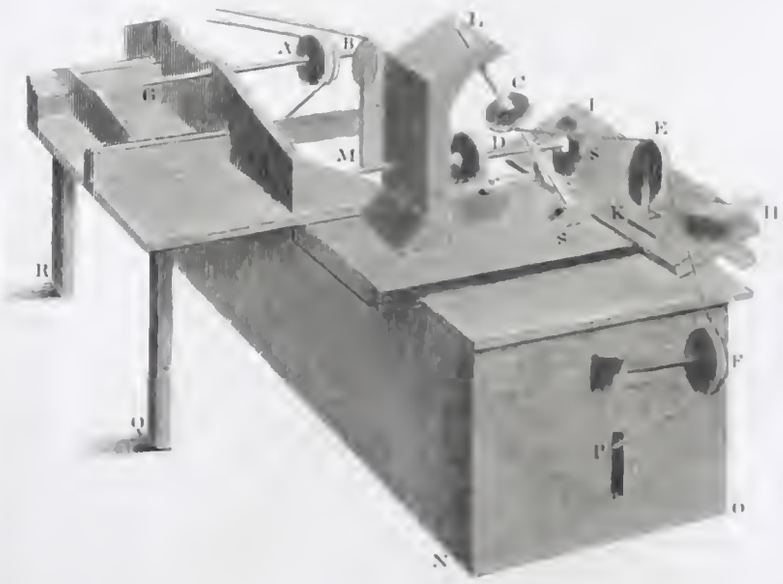
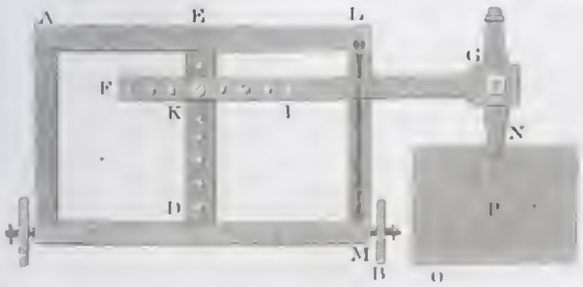


Fig. 5.



Saxe.

a step of which he afterwards repented. The countess left him with regret; but this did not prevent her from marrying soon after. The count of Saxe was too fond of pleasure and variety to submit to the duties which marriage imposes. In the midst, however, of the pleasures in which he sometimes indulged, he never lost sight of his profession. He carried along with him wherever he went a library of military books; and even when he seemed most taken up with his pleasures, he never failed to spend an hour or two in private study.

In 1717 he went to Hungary, where the emperor had an army of 15,000 men under the command of Prince Eugene. Young Count Saxe was present at the siege of Belgrade, and at a battle which the prince gained over the Turks. On his return to Poland in 1718, he was made a knight of the Golden Eagle.

The wars in Europe being concluded by the treaties of Utrecht and Passarowitz, Count Saxe went to France. He had always professed a partiality for that country. French, indeed, was the only foreign language which during his infancy he was willing to learn. He spent his whole time during the peace in studying mathematics, fortification, and mechanics, sciences which exactly suited his genius. The mode of exercising troops had struck his attention when very young. At 16 he invented a new exercise, which was taught in Saxony with the greatest success. Having obtained a regiment in France in 1722, he formed it himself according to his new plan. From that moment the *Chevalier Folard*, an excellent judge of military talents, predicted that he would be a great man.

In 1726 the states of Courland chose him for their sovereign. But both Poland and Russia rose in arms to oppose him. The Czarina wished to bestow the dutchy on Menzikoff, a happy adventurer, who from a pastry-cook's boy, became a general and a prince. Menzikoff sent 800 Russians to Milan, where they besieged the new-chosen duke in his palace. Count Saxe, who had only 60 men, defended himself with astonishing intrepidity. The siege was raised, and the Russians obliged to retreat. Soon after he retired to Usmaiz, and prepared to defend his people against the two hostile nations. Here he remained with only 300 men, till the Russian general approached at the head of 4000 to force his retreat. That general invited the count to a conference, during which he intended to surprise him, and take him prisoner. The count, informed of the plot, reproached him for his baseness, and broke up the conference. About this time he wrote to France for men and money. Mademoiselle le Couvreur, a famous actress, pawned her jewels and plate, and sent him the sum of 40,000 livres. This actress had formed his mind for the fine arts. She had made him read the greater part of the French poets, and given him a taste for the theatre, which he retained even in the camp. The count, unable to defend himself against Russia and Poland, was obliged in the year 1729 to leave his new dominions, and retire into France. It is said that Anne Iwanowa, dutchess dowager of Courland, and second daughter of the tzar Iwan Alexiowitz, had given him hopes of marriage, and abandoned him at that time because she despaired of fixing his wavering passion.—This inconstancy lost him not only Courland, but the throne of Russia itself, which that princess afterwards filled.

Count Saxe, thus stript of his territories, devoted himself for some time to the study of mathematics. He composed also, in 13 nights, and during the intervals of an ague, his *Reveries*, which he corrected afterwards. This book is written in an incorrect but forcible style; it is full of remarks both new and profound, and is equally useful to the soldier and the general.

The death of the king of Poland his father in 1733, kindled a new war in Europe. His brother, the elector of Saxony, offered him the command of all his forces, but he preferred the French service, and repaired to the marechal of Berwick's army, which was encamped on the Rhine. "Count," said that general, who was preparing to attack the enemy's entrenchments at Etlinghen, "I was going to send for 3000 men, but your arrival is of more value than theirs." When the attack began, the count, at the head of a regiment of grenadiers, forced the enemy's lines, and by his bravery decided the victory. He behaved at the siege of Philipsburgh with no less intrepidity. For these services he was, in 1734, rewarded with the rank of lieutenant-general. Peace was concluded in 1736; but the death of Charles VI., emperor of Germany, kindled a new war almost immediately.

Prague was besieged by the Count of Saxe in 1741, near the end of November, and taken the same month by assault. The conquest of Egra followed that of Prague. It was taken a few days after the trenches were opened. This success gave so much joy to the emperor Charles VII., that he wrote a congratulatory letter to the conqueror with his own hands.

In 1744 he was made marechal of France, and commanded a part of the French army in Flanders. During that campaign he displayed the greatest military conduct. Though the enemy was superior in number, he observed their motions so skilfully that they could do nothing.

In January 1745, an alliance was concluded at Warsovia between the queen of Hungary, the king of England, and the States of Holland. The ambassador of the States General, meeting Marechal Saxe one day at Versailles, asked his opinion of that treaty. "I think (says he), that if the king my master would give me an unlimited commission, I would read the original at the Hague before the end of the year." This answer was not a bravado; the marechal was capable of performing it.

He went soon after, though exceedingly ill, to take the command of the French army in the Low Countries. A gentleman seeing the feeble condition in which he left Paris, asked him how he could in that situation undertake so great an enterprise. "The question (replied he) is not about living, but setting out."—Soon after the opening of the campaign, the battle of Fontenoy was fought. Marechal Saxe was at the point of death, yet he caused himself to be put into a litter, and carried round all the posts. During the action he mounted on horseback, though he was so very weak that his attendants dreaded every moment to see him expire. The victory of Fontenoy, owing entirely to his vigilance and capacity, was followed by the reduction of Tournay, Bruges, Ghent, Oudenard, Ostend, Ath, and

Saxe.

and Brussels: This last city was taken on the 28th February 1746; and very soon after the king sent to the marechal a letter of naturalization conceived in the most flattering terms. The succeeding campaigns gained him additional honours. After the victory of Raucoux, which he gained on the 11th October 1746, the king of France made him a present of six pieces of cannon. He was, on the 12th of January of the following year, created marechal of all the French armies, and, in 1748, commander-general of all those parts of the Netherlands which were lately conquered.

Holland now began to tremble for her safety. Maestricht and Bergen-op-Zoom had already fallen, and nothing but misfortunes seemed to attend the further prosecution of the war. The States General, therefore, offered terms of peace, which were accepted, and a treaty concluded on the 18th October 1748.

Marechal Saxe retired to Chambord, a country seat which the king of France had given him. Some time after, he went to Berlin, where the king of Prussia received him as Alexander would have received Cæsar.—On his return to France, he spent his time among men of learning, artists, and philosophers. He died of a fever, on the 30th November 1750, at the age of 54.

Some days before his death, talking to M. Senac his physician about his life, "It has been (says he) an excellent dream." He was remarkably careful of the lives of his men. One day a general officer was pointing out to him a post which would have been of great use. "It will only cost you (says he) a dozen grenadiers." "That would do very well," replied the marechal, "were it only a dozen lieutenant-generals."

It was impossible for Marechal Saxe, the natural brother of the king of Poland, elected sovereign of Courland, and possessed of a vigorous and restless imagination, to be destitute of ambition. He constantly entertained the notion that he would be a king. After losing the crown of Russia by his inconstancy in love, he formed, it is said, the project of assembling the Jews, and of being the sovereign of a nation which for 1700 years had neither possessed chief nor country. When this chimerical idea could not be realized, he cast his eyes upon the kingdom of Corsica. After failing in this project also, he was busily employed in planning a settlement in some part of America, particularly Brazil, when death surprised him.

He had been educated and died in the Lutheran religion. "It is a pity (said the queen of France, when she heard of his death) that we cannot say a single *De profundis* (*prayer for the dead*) for a man who has made us sing so many *Te Deums*." All France lamented his death.

By his will, which is dated at Paris, March 1. 1748, he directed that his body should be buried in quicklime: "that nothing (says he) may remain of me in this world but the remembrance of me among my friends." These orders, however, were not complied with; for his body was embalmed, put into a leaden coffin, which was inclosed in another of copper, and this covered with one of wood, bound about with iron. His heart was put into a silver gilt box, and his entrails into another coffin. Louis XV. was at the charge of his funeral. By his order his corpse was interred with great pomp and splendour in the Lutheran church of St Thomas, at Strasburg, on the 8th February 1751.

Saxe || Saxo-Grammaticus.

The marechal was a man of ordinary stature, of a robust constitution, and extraordinary strength. To an aspect, noble, warlike, and mild, he joined the excellent qualities of the heart. Affable in his manners, and disposed to sympathize with the unfortunate, his generosity sometimes carried him beyond the limits of his fortune. On his death-bed he reviewed the errors of his life with remorse, and expressed much penitence.

The best edition of his Reveries was printed at Paris 1757, in two vols 4to. It was compared with the greatest attention with the original manuscript in the king's library. It is accompanied with many designs exactly engraved, and a Life of the Author. The Life of Marechal Saxe was written by M. d'Espagnac, two vols 12mo. This history is written in the panegyrical style. The author is, however, impartial enough to remark, that in the three battles upon which the reputation of Marechal Saxe is founded, he engaged in the most favourable circumstances. "Never did a general (says he) stand in a more advantageous situation. Honoured with the confidence of the king, he was not restrained in any of his projects. He always commanded a numerous army: his soldiers were steady, and his officers possessed great merit."

SAXIFRAGA, Saxifrage, a genus of plants belonging to the decandria class; and in the natural method ranking under the 13th order, *Succulentæ*. See Botany *Index*.

SAXO-Grammaticus, descended from an illustrious Danish (A) family, was born about the middle of the 12th century. Stephens, in his edition of Saxo-Grammaticus, printed at Soroë, indubitably proves, that he must have been alive in 1156, but cannot ascertain the exact place and time of his birth. See Stephens's *Prolegomena* to the Notes on Saxo-Grammaticus, p. 8, to 24; also Holberg, vol. i. p. 269; and Mallet's North. Antiq. vol. i. p. 4. On account of his uncommon learning, Saxo was distinguished by the name of *Grammaticus*. He was provost of the cathedral church of Roskild, and warmly patronized by the learned and warlike Absalon, the celebrated archbishop of Lunden, at whose instigation he wrote the History of Denmark. His epitaph, a dry panegyric in bad Latin verses, gives no account of the era of his death, which happened, according to Stephens, in 1204. His history, consisting of 16 books, begins from the earliest account of the Danish annals, and concludes with the year 1186. According to the opinion of an accurate writer, the first part, which relates to the origin of the Danes, and the reigns of the ancient kings, is full of fables; but the eight last books, and particularly those which regard the events of his own times, deserve the utmost credit. He wrote in Latin;

Coxe's *Travels into Denmark.*

Holberg.

(A) Some authors have erroneously conjectured, from his name Saxo, that he was born in Saxony; but Saxe was no uncommon appellation among the ancient Danes. See Olaus Wormius *Monumenta Danica*, p. 186, and Stephens's *Prolegomena*, p. 10.

Saxo-Grammaticus || Saxony.

Latin; the style, if we consider the barbarous age in which he flourished, is in general extremely elegant, but rather too poetical for history. Mallet, in his *Histoire de Dannemarc*, vol. i. p. 182, says, "that Sperling, a writer of great erudition, has proved, in contradiction to the assertions of Stephens and others, that Saxo-Grammaticus was secretary to Absalon; and that the Saxo, provost of Roskild, was another person, and lived earlier."

SAXONY, the name of two circles of the German empire, a kingdom, and a dutchy of the same. The lower circle is bounded to the south by the circle of Upper Saxony, and a part of that of the Upper Rhine; to the north by the dutchy of Sleswick, belonging to the king of Denmark, and the Baltic; to the west, by the circle of Westphalia and the North sea; and to the east by the circle of Upper Saxony. The states belonging to it are the dukes and princes of Magdeburg and Bremen, Zell, Grubenhagen, Calenburg, Wolfenbuttle, Halberstadt, Mecklenburg-Schwerin, Mecklenburg-Gustro, Holstein-Gluckstadt, Holstein-Gottorf, Hildesheim, Saxe-Lawenburg; the archbishopric of Lubeck; the principalities of Schwerin, Ratzeburg, Blankenburg, Ranzau; the imperial cities of Lubeck, Gotzlar, Muhlhausen, Nordhausen, Hamburg, and Bremen. The dukes of Bremen and Magdeburg are alternately directors and summoning princes; but, ever since the year 1682, the diets which used generally to be held at Brunswick or Lunenburg have been discontinued. Towards the army of the empire, which, by a decree of the empire in 1681, was settled at 40,000 men, this circle was to furnish 1322 horsemen and 2707 foot; and of the 300,000 florins granted to the imperial chest in 1707, its quota was 31,271 florins; both which assessments are the same with those of Upper Saxony, Burgundy, Swabia, and Westphalia. The inhabitants of this circle are almost all Lutherans.

The circle of Upper Saxony is bounded by that of Franconia, the Upper Rhine, and Lower Saxony; and also by the Baltic sea, Prussia, Poland, Silesia, Lusatia, and Bohemia. It is of great extent, and contains the following states; viz. the electors of Saxony and Brandenburg, Saxe-Weimar, Saxe-Eisenach, Saxe-Cobourg, Saxe-Gotha, Saxe-Altenburg, Saxe-Querfurt, the Hither and Farther Pomerania, Camin, Anhalt, Quidlenburg, Gernrode, Walkenried, Schwarzburg, Sondershausen, Schwarzburg-Rudolstadt, Mansfeld, Stolberg, Barby, the counts of Reussen, and the counts of Schonberg. No diets have been held in this circle since the year 1683. The elector of Saxony has always been the sole summoning prince and director of it. Most of the inhabitants profess the Protestant religion. When the whole empire furnishes 40,000 men, the quota of this circle was 1322 horse and 2707 foot. Of the 300,000 florins granted by the empire in 1707, it contributed only 31,271 florins, 28 kruitzers, being rated no higher than those of Westphalia, Lower Saxony, Swabia, and Burgundy, though it is much larger. Agreeable to a resolution and regulation in 1654, this circle was to nominate only two assessors of the chamber-court.

The electorate of Saxony was raised to the rank of a kingdom by Bonaparte in 1806, and still retains the dignity. Previous to the overthrow of the French power in 1814, it consisted of the dutchy of Saxony, the greatest part of the margravate of Meissen, a part of Vogtland, and the northern half of the landgravate of Thuringia. The Lusatias also, and a part of the country of Henneberg, belong to it, though no part of this circle; but by an act of the Congress of Vienna in 1814, one half of the territory, and two-fifths of the population were given to Prussia. The soil of the kingdom of Saxony is in general exceeding rich and fruitful, yielding corn, fruits, and pulse in abundance, together with hops, flax, hemp, tobacco, aniseed, wild saffron, wood; and in some places woad, wine, coals, porcelain, clay, terra sigillata, fuller's-earth, fine shiver, various sorts of beautiful marble, serpentine stone, and almost all the different species of precious stones. Sulphur also, alum, vitriol, sand, and free-stone, salt-springs, amber, turf, cinnabar, quicksilver, antimony, bismuth, arsenic, cobalt, and other minerals, are found in it. This country, besides the above articles, contains likewise valuable mines of silver, copper, tin, lead, and iron. In 1790, the produce of the mines was estimated at 2,000,000 crowns. The country abounds in many places with horned cattle, sheep, horses, and venison. The principal rivers by which it is watered are the Elbe, the Schwerze-Elster, the Mulde, the Saale, the Unstrut, the Weisse-Elster, and the Pleisse. These rivers, as well as the lakes and rivulets, abound in fish; and in the White-Elster are found beautiful pearls. The kingdom is extremely well cultivated and and inhabited. The population, in 1802, was estimated at 2,150,000; but by the cession in 1814, it is reduced to 1,200,000. The superficial extent of the kingdom is now about 7200 English square miles; before the cessions, it was about 15,200. The provincial diets here consist of three classes. The first is composed of the prelates, the counts, and lords, and the two universities of Leipsic and Wittenberg. To the second belong the nobility in general, immediate or mediate, that is, such as stand immediately under the fief chancery or the aulic judicatories, and such as are immediately under the jurisdiction of the amtman. The third class is formed of the towns in general. The general provincial diets are ordinarily held every six years; but there are others called *selection diets*, which are convened commonly every two years. We would here observe, that not only these diets, but those in most of the other states of Germany, are at present extremely insignificant and unimportant, retaining little more than the shadow of their former power and privileges; for even the petty princes, though they depend upon their more potent neighbours, and must be careful not to give them any umbrage, are almost as absolute in their respective territories as the grand seignior himself. As to religion, it was in this country that the reformation took its rise in the 16th century, to which it hath ever since adhered, according to the doctrines of Luther.* The two late electors, when they embraced Popery in order to qualify themselves to be elected kings of Poland, gave the most solemn assurances to their people, that they would inviolably maintain the established religion and its professors in the full and free enjoyment of all their ecclesiastical rights, privileges, and prerogatives whatsoever, in regard to churches, worship, ceremonies, usages, universities, schools, benefices, incomes, profits, jurisdictions, and immunities. The royal family still continue Roman catholics, though they have lost the crown

Saxony.

* See *Reformation*, No. 8.

Saxony. crown of Poland, for which they at first embraced Popery. With respect to ecclesiastical matters, the country is divided into parishes, and these again into spiritual inspections and consistories, all subordinate to the ecclesiastical council and upper consistory of Dresden, in which city and Leipsic the Calvinists and Roman Catholics enjoy the free exercise of their religion. Learning flourishes in this kingdom; in which, besides the free schools and gymnasia in most of the chief towns, is the celebrated university of Leipsic, in which are societies for the liberal arts and the German language; and in the town are booksellers and printers of the greatest eminence. A great variety of manufactures are also carried on in this country. The principal are those of fine and coarse linen, thread, fine lace, paper, fine glasses and mirrors; porcelain, equal if not superior to that of China; iron, brass, and steel wares; manufactures of gold and silver, cotton, wool, and silk; gloves, caps, hats and tapestry; in which, and the natural productions mentioned above, together with dyeing, an important foreign commerce is carried on. Leipsic is one of the most industrious places. In 1800 it had eight manufactories of wax-cloth, eight of velvet and other silk stuffs, two of silk-stockings, two of painted paper; two extensive and excellent type-foundries, fifteen printing establishments, besides others of tobacco, leather, &c. But the mining district round Freyberg is the most industrious of the whole kingdom. Here, besides the extensive establishments for the amalgamation and purification of silver, there are foundries of canon and bells, several manufactures of gold and silver lace, of woollen cloth, of cotton yarn, &c. At Chemnitz, there were, in 1796, 1626 weavers, and twelve establishments for printing cotton.

Before the abolition of the electorate, the titles of the elector of Saxony were, duke of Saxony, Juliers, Cleve, and Berg; as also of Engern and Westphalia, arch-marshal and elector of the Holy Roman empire, landgrave in Thuringia, margrave of Meissen, and of Upper and Lower Lusatia, burgrave of Magdeburg, princely count of Henneberg, count of La Mark, Ravensberg, Barby, and Hanau, and lord of Ravenstein. Among the electors he was reckoned the sixth, as great marshal of the empire, of which he was also vicar, during an interregnum, in all places not subject to the vicariate of the county palatine of the Rhine. He was moreover sole director of the circle; and in the vacancy of the see of Mentz claims the directorium at the diet of the empire. His matricular assessment, on account of the electorate, was 1984 florins, besides what he paid for other districts and territories. To the chamber-courts he contributed, each term, the sum of 1545 rix-dollars, together with 83 rix-dollars and 62 kruitzers on account of the county of Mansfeld. In this kingdom, subordinate to the privy council, are various colleges for the departments of war, foreign affairs, the finances, fiefs, mines, police, and ecclesiastical affairs, together with high tribunals and courts of justice, to which appeals lie from the inferior. The revenues of the king of Saxony amounted to about 900,000*l.* in 1816. They arise from the ordinary and extraordinary subsidies of the states; his own demesnes, consisting of several bailiwics; the impost on beer, and the fine porcelain of the country; tenths of corn, fruit, wine, &c.; his own silver mines, and the tenths of those that belong to individuals. The kingdom, however, is at present deeply in debt. The regular troops amount to 12,000 men, exclusive of the militia of the ban, the arriere-ban, and the body of miners and hunters, who are obliged in time of war to bear arms. The whole kingdom is divided into circles.

Saxony was raised to the rank of a kingdom by Bonaparte in 1806. In the following year, Prussia was compelled to cede to Saxony the district of Cottbus, and at the same time four-fifths of her Polish territories were disunited from her, and erected into a principality, under the name of the dutchy of Warsaw, and the sovereignty given to the King of Saxony. The dutchy was afterwards enlarged by cessions from Austria, and continued subject to the king of Saxony till 1814, when it was transferred to Russia.

The country of Saxony is remarkable for being the mother of the present English nation; but concerning the Saxons themselves, previous to that period, we have very few particulars. The Saxons (says Mr Whitaker) have been derived by our historians from very different parts of the globe; India, the north of Asia, and the forests of Germany. And their appellation has been equally referred to very different causes; the name of their Indian progenitor, the plundering disposition of their Asiatic fathers, and the short hooked weapons of their warriors. But the real origin of the Saxons, and the genuine derivation of their name, seem clearly to be these.

In the earlier period of the Gallic history, the Celtæ of Gaul crossed the Rhine in considerable numbers, and planted various colonies in the regions beyond it. Thus the Volcæ Tectosages settled on one side of the Hercynian forest and about the banks of the Neckar; the Helvetii upon another and about the Rhine and Maine; the Boii beyond both; and the Senones in the heart of Germany. Thus also we see the Treviri, the Nervii, the Suevi, and the Marcomanni, the Quadi, the Venedi, and others, in that country; all plainly betrayed to be Gallic nations by the Gallic appellations which they bear, and all together possessing the greatest part of it. And, even as late as the conclusion of the first century, we find one nation on the eastern side of this great continent actually speaking the language of Gaul, and another upon the northern using a dialect nearly related to the British. But as all the various tribes of the Germans are considered by Strabo to be γνησιοι Γαλαται, or genuine Gauls in their origin; so those particularly that lived immediately beyond the Rhine, and are asserted by Tacitus to be indubitably native Germans, are expressly denominated Γαλαται, or Gauls, by Diodorus, and as expressly declared by Dio to have been distinguished by the equivalent appellation of *Celtæ* from the earliest period. And the broad line of nations, which extended along the ocean, and reached to the borders of Scythia, was all known to the learned in the days of Diodorus, by the same significant appellation of Γαλαται, or Gauls.

Of these the most noted were the Si Cambri and Cimbri; the former being seated near the channel of the Rhine, and the latter inhabiting the peninsula of Jutland. And the denominations of both declare their original;

Saxony.

original; and show them to have been derived from the common stock of the Celtæ, and to be of the same Celtic kindred with the Cimbri of our own Sommersetshire, and the Cymbri or Cambrians of our own Wales. The Cimbri are accordingly denominated *Celtæ* by Strabo and Appian. And they are equally asserted to be Gauls by Diodorus; to be the descendants of that nation which sacked the city of Rome, plundered the temple of Delphi, and subdued a great part of Europe and some of Asia.

Immediately to the south of these were the Saxons, extending from the isthmus of the Chersonesus to the current of the Elbe. And they were equally Celtic in their origin as their neighbours. They were denominated *Ambrones* as well as Saxons; and, as such, are included by Tacitus under the general appellation of *Cimbri*, and comprehended in Plutarch under the equal one of *Celto-Scythæ*. And the name of *Ambrones* appears particularly to have been Gallic; being common to the Saxons beyond the Elbe, and the Ligurians in Cisalpine Gaul; as both found to their surprise, on the irruption of the former into Italy with the Cimbri. And, what is equally surprising, and has been equally unnoticed by the critics, the Welsh distinguish England by the name of *Locgr* or *Liguria*, even to the present moment. In that irruption these Saxons, Ambrons, or Ligurians, composed a body of more than 30,000 men, and were principally concerned in cutting to pieces the large armies of Manlius and Cæpio. Nor is the appellation of *Saxons* less Celtic than the other. It was originally the same with the Belgic Suessones of Gaul; the capital of that tribe being now intitled *Soisons* by the French, and the name of the Saxons pronounced *Saisen* by the Welsh, *Sason* by the Scotch, and *Sasenach* or *Saxsenach* by the Irish. And the Suessones or Saxones of Gaul derived their own appellation from the position of their metropolis on a river, the stream at Soisons being now denominated the *Aisne*, and formerly the *Axon*; Uesson or Axon importing only waters or a river, and S-uess-on or S-ax-on on the waters or the river. The Suessones, therefore, are actually denominated the *Uessones* by Ptolemy; and the Saxones are actually intitled the *Axones* by Lucan.

These, with their brethren and allies the Cimbri, having been more formidable enemies to the Romans by land, than the Samnites, Carthaginians, Spaniards, Gauls, or Parthians, in the second century applied themselves to navigation, and became nearly as terrible by sea. They soon made themselves known to the inhabitants of the British isles by their piracies in the northern channels, and were denominated by them *Lochlyn* or *Lochlynach*; *lued-lyn* signifying the people of the wave, and the *d* being quiescent in the pronunciation. They took possession of the Orkney islands, which were then merely large shoals of sand, uncovered with wood, and overgrown with rushes; and they landed in the north of Ireland, and ravaged the country. Before the middle of the third century they made a second descent upon the latter, disembarked a considerable body of men, and designed the absolute subjection of the island. Before the conclusion of it, they carried their naval operations to the south, infested the British channel with their little vessels, and made frequent descents upon the coasts. And in the fourth and fifth centuries, acting in conjunction with the Picts of Caledonia and the Scots of Ireland, they ravaged all the eastern and south-eastern shores of Britain, began the formal conquest of the country, and finally settled their victorious soldiery in Lancashire.

Saxony || Scald-cream.

SAY, or Saye, in *Commerce*, a kind of serge much used abroad for linings, and by the religious for shirts; with us it is used for aprons by several sorts of artificers, being usually dyed green.

SCAB. See Itch and Medicine.

Scab in Sheep. See Sheep, Diseases of, under Farriery.

SCABIOSA, Scabious; a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 48th order, *Aggregatæ*. See Botany *Index*.

SCABRITA, a genus of plants belonging to the tetrandria class. See Botany *Index*.

SCÆVOLA, C. Mucius, a young Roman of illustrious birth, is particularly celebrated in the Roman history for a brave but unsuccessful attempt upon the life of Porsena king of Hetruria, about the year before Christ 504. See the article Rome, N° 71.

Scævola, a genus of plants belonging to the pentandria class. See Botany *Index*.

SCAFFOLD, among builders, an assemblage of planks and boards, sustained by tressels and pieces of wood fixed in the wall; whereon masons, bricklayers, &c. stand to work, in building high walls, and plasterers in plastering ceilings, &c.

Scaffold, also denotes a timber-work raised in the manner of an amphitheatre, for the more commodious viewing any show or ceremony: it is also used for a stage raised in some public place for the execution of criminals.

SCALA-nova, anciently Neapolis, called by the Turks *Koushadasc*, is situated in a bay, on the slope of a hill, the houses rising one above another, intermixed with minarets and tall slender cypresses. "A street, through which we rode (says Dr Chandler†), was hung with goat skins exposed to dry, dyed of a most lively red. At one of the fountains is an ancient coffin used as a cistern. The port was filled with small craft. Before it is an old fortress on a rock or islet frequented by gulls and sea-mews. By the water-side is a large and good khan, at which we passed a night on our return. This place belonged once to the Ephesians, who exchanged it with the Samians for a town in Caria."

† *Travels in Asia Minor.*

SCALADO, or Scallade, in the art of war, a furious assault made on the wall or rampart of a city, or other fortified place, by means of ladders, without carrying on works in form, to secure the men.

SCALD-cream, sometimes also called *Clouted-cream*; a curious method of preparing cream for butter, almost peculiar to Devonshire. Dr Hales, in Philosophical Transactions volume xlix. p. 342, 1755, Part I. gives some account of the method of preparing this delicate and luxurious article; other writers also speak of it. With an elucidation or two, we shall nearly quote Mr Feltham's account from the Gentleman's Magazine, volume lxi. part ii. It is there observed, that the purpose of making scald-cream is far superior butter than can be procured from the usual raw cream, being preferable for flavour and keeping; to which those accustomed are so partial, as seldom to eat any other. As leaden cisterns would not answer for scalding cream, the dairies

dairies mostly adopt brass pans, which hold from three to five gallons, for the milk; and that which is put into those pans one morning, stands till the next, when, without disturbing it, it is set over (on a trivet) a steady brisk wood fire, devoid of smoke, where it is to remain from seven to fifteen minutes, according to the size of the pan, or the quantity in it: the precise time of removing it from the fire must be particularly attended to, and is, when the surface begins to wrinkle or to gather in a little, showing signs of being near the agitation of boiling, which it must by no means do; it is then instantly to be taken off, and placed in the dairy until the next morning, when the fine cream is thrown up, and may be taken for the table, or for butter, into which it is now soon converted by stirring it with the hand. Some know when to remove it from the fire by sounding the pan with the finger, it being then less sonorous; but this can only be acquired by experience. Dr Hales observes, that this method of preparing milk takes off the ill taste which it sometimes acquires from the cows feeding on turnips, cabbage, &c.

SCALDS, in the history of literature, a name given by the ancient inhabitants of the northern countries to their poets; in whose writings their history is recorded.

SCALE, a mathematical instrument consisting of several lines drawn on wood, brass, silver, &c. and variously divided, according to the purposes it is intended to serve; whence it acquires various donominations, as the *plain scale*, *diagonal scale*, *plotting scale*, &c.

SCALE, in *Music*, sometimes denominated a *gamut*, a *diagram*, a *series*, an *order*, a *diapason*. It consists of the regular gradations of sound, by which a composer or performer, whether in rising or descending, may pass from any given tone to another. These gradations are seven. When this order is repeated, the first note of the second is consentaneous with the lowest note of the first; the second of the former with the second of the latter; and so through the whole octave. The second order, therefore, is justly esteemed only a repetition of the first. For this reason the scale, among the moderns, is sometimes limited to an octave; at other times extended to the compass of any particular voice or instrument. It likewise frequently includes all the practical gradations of musical sound, or the whole number of octaves employed in composition or execution, arranged in their natural order.

SCALE, in *Architecture* and *Geography*, a line divided into equal parts, placed at the bottom of a map or draught, to serve as a common measure to all the parts of the building, or all the distances and places of the map.

SCALENE, or SCALENOUS TRIANGLE, *scalenum*, in *Geometry*, a triangle whose sides and angles are unequal. See GEOMETRY.

SCALENUS, in *Anatomy*. See there, *Table of the Muscles*.

SCALIGER, JULIUS CÆSAR, a learned critic, poet, physician, and philosopher, was born at the castle of Ripa, in the territories of Verona, in 1484; and is said to have been descended from the ancient princes of Verona, though this is not mentioned in the letters of naturalization he obtained in France in 1528. He learned the first rudiments of the Latin tongue in his own country; and in his 12th year was presented to the emperor Maximilian, who made him one of his pages. He served that emperor 17 years, and gave signal proofs of his valour and conduct in several expeditions. He was present at the battle of Ravenna in April 1512, in which he had the misfortune to lose his father Benedict Scaliger, and his brother Titus; on which his mother died with grief: when being reduced to necessitous circumstances, he entered into the order of the Franciscans, and applied himself to study at Bologna; but soon after, changing his mind with respect to his becoming a monk, he took arms again, and served in Piedmont; at which time a physician persuaded him to study physic, which he did at his leisure hours, and also learned Greek; and at last the gout determined him, at 40 years of age, to abandon a military life. He soon after settled at Agen, where he married, and began to apply himself seriously to his studies. He learned first the French tongue, which he spoke perfectly in three months: and then made himself master of the Gascon, Italian, Spanish, German, Hungarian, and Sclavonian: but the chief object of his studies was polite literature. Meanwhile, he supported his family by the practice of physic. He did not publish any of his works till he was 47 years of age; when he soon gained a great name in the republic of letters. He had a graceful person, and so strong a memory, even in his old age, that he dictated to his son 200 verses which he had composed the day before, and retained without writing them down. He was so charitable, that his house was as it were an hospital for the poor and sick; and he had such an aversion to lying, that he would have no correspondence with those who were given to that vice; but, on the other hand, he had much vanity, and a satirical spirit, which created him many enemies. He died of a retention of urine in 1558. He wrote in Latin, 1. A Treatise on the Art of Poetry. 2. Exercitations against Cardan: which works are much esteemed. 3. Commentaries on Aristotle's History of Animals, and on Theophrastus on Plants. 4. Some Treatises on Physic. 5. Letters, Orations, Poems, and other works, in Latin.

SCALIGER, *Joseph Justus*, one of the most learned critics and writers of his time. He was the son of the former, and was born at Agen in France in 1540. He studied in the college of Bourdeaux; after which his father took him under his own care, and employed him in transcribing his poems; by which means he obtained such a taste for poetry, that before he was 17 years old he wrote a tragedy upon the subject of Oedipus, in which he introduced all the poetical ornaments of style and sentiment. His father dying in 1558, he went to Paris the year following, with a design to apply himself to the Greek tongue. For this purpose he for two months attended the lectures of Turnebus; but finding that in the usual course he should be a long time in gaining his point, he shut himself up in his closet, and by constant application for two years gained a perfect knowledge of that language. After which he applied to the Hebrew, which he learned by himself with great facility. He made no less progress in the sciences; and his writings procured him the reputation of one of the greatest men of that or any other age. He embraced the reformed religion at 22 years of age. In 1563, he attached himself to Lewis Casteignier de la Roche Pozay, whom he attended in several journeys; and in 1593, was invited to accept of the place of honorary professor

professor of the university of Leyden, which he complied with. He died of a dropsy in that city in 1609. He was a man of great temperance; was never married; and was so close a student, that he often spent whole days in his study without eating; and though his circumstances were always very narrow, he constantly refused the presents that were offered him. He published many works; the principal of which are, 1. Notes on Seneca's Tragedies, on Varro, Ausonius, Pompeius Festus, &c. 2. His Latin Poems. 3 A Treatise *de Emendatione Temporum*. 4. Eusebius's Chronicle, with Notes. 5. *Canones Isagogici*; and many other works. The collections entitled *Scaligeriana*, were collected from his conversations by one of his friends; and being ranged into alphabetical order, were published by Isaac Vossius.

SCALLOP. See OSTREA, CONCHOLOGY *Index*.

In the Highlands of Scotland, the great scallop shell is made use of for skimming milk. In old times, it had a more honourable place; being admitted into the halls of heroes, and was the cup of their festivity when the tribe assembled in the hall of their chieftain.

SCALPEL, in *Surgery*, a kind of knife used in anatomical dissections and operations in surgery.

SCALPER, or SCALPING-IRON, a surgeon's instrument used for scraping foul carious bones.

SCALPING, in military history, a barbarous custom, in practice among the Indian warriors, of taking off the tops of the scalps of the enemies skulls with their hair on. They preserve them as trophies of their victories, and are rewarded by their chiefs according to the number of scalps they bring in.

SCALPRA DENTALIA, instruments used by surgeons to take off those black, livid, or yellow crusts which adhere to the teeth, and not only loosen and destroy them, but taint the breath.

SCAMMONY, a concreted vegetable juice of a species of convolvulus, partly of the resin, and partly of the gum kind. See CONVOLVULUS, MATERIA MEDICA *Index*.

SCANDALUM MAGNATUM, in *Law*, is a defamatory speech or writing to the injury of a person of dignity; for which a writ that bears the same name is granted for the recovery of damages.

SCANDERBEG, the surname of George Castriot king of Albania, a province of Turkey in Europe, dependent on the Ottoman empire. He was delivered up with his three elder brothers as hostages, by their father, to Amurath II. sultan of the Turks, who poisoned his brothers, but spared him on account of his youth, being likewise pleased with his juvenile wit and amiable person. In a short time he became one of the most renowned generals of the age: and revolting from Amurath, he joined Hunniade Corvin, a most formidable enemy to the Ottoman power. He defeated the sultan's army, took Amurath's secretary prisoner, obliged him to sign and seal an order to the governor of Croia, the capital of Albania, to deliver up the citadel and city to the bearer of that order, in the name of the sultan. With this forged order he repaired to Croia; and thus recovered the throne of his ancestors and maintained the independency of his country against the numerous armies of Amurath and his successor Mahomed II. who was obliged to make peace with this hero in 1461. He then went to the assistance of Ferdinand of Arragon, at the request of Pope Pius II. and by his assistance Ferdinand gained a complete victory over his enemy the count of Anjou. Scanderbeg died in 1467.

SCANDEROON. See ALEXANDRETTA.

SCANDINAVIA, a general name for the countries of Norway, Sweden, and Denmark, anciently under the dominion of one prince. The inhabitants of these countries in former times, were excessively addicted to war. From their earliest years they applied themselves to the military art, and accustomed themselves to cold, fatigue, and hunger. Even the very sports of youth and childhood were dangerous. They consisted in taking frightful leaps, climbing up the steepest rocks, fighting naked with offensive weapons, wrestling with the utmost fury; so that it was usual to see them grown up to be robust men, and terrible in the combat, at the age of 15. At this early age the young men became their own masters; which they did by receiving a sword, a buckler, and a lance. This ceremony was performed at some public meeting. One of the principal men of the assembly named the youth in public; after which he was obliged to provide for his own subsistence, and was either now to live by hunting, or by joining in some incursion against the enemy. Great care was taken to prevent the young men from too early connexions with the female sex; and indeed they could have no hope to gain the affection of the fair, but in proportion to the courage and address they had shown in their military exercises. Accordingly, in an ancient song, we find Bartholin, king of Norway, extremely surprised that his mistress should prove unkind, as he could perform eight different exercises. The children were generally born in camps; and being inured from their infancy to behold nothing but arms, effusion of blood, and slaughter, they imbibed the cruel disposition of their fathers, and when they broke forth upon other nations, behaved rather like furies than like human creatures.

The laws of this people, in some measure, resembled those of the ancient Lacedæmonians. They knew no virtue but bravery, and no vice but cowardice. The greatest penalties were inflicted on such as fled from battle. The laws of the ancient Danes declared such persons infamous, and excluded them from society. Among the Germans, cowards were sometimes suffocated in mud; after which they were covered over with hurdles, to show, says Tacitus, that though the punishment of crimes should be public, there are certain degrees of cowardice and infamy which ought to be buried in oblivion. Frotho king of Denmark enacted, by law, that whoever solicited an eminent post ought upon all occasions to attack one enemy, to face two, to retire only one step back from three, and never to make an actual retreat till assaulted by four. The rules of justice themselves were adapted and warped to these prejudices. War was looked upon as a real act of justice, and force was thought to be an incontestable title over the weak, and a visible mark that God had intended them to be subject to the strong. They had no doubt but that the intentions of the Deity had been to establish the same dependence among men that takes place among inferior creatures; and, setting out from this principle of the natural *inequality* among men, they had from thence inferred that the weak had no right

to what they could not defend. This maxim was adopted with such rigour, that the name of divine judgment was given not only to the judicatory combat, but to conflicts and battles of all sorts; victory being, in their opinion, the only certain mark by which Providence enables us to distinguish those whom it has appointed to command others.—Lastly, Their religion, by annexing eternal happiness to the military virtues, gave the utmost possible degree of vigour to that propensity which these people had for war, and to their contempt of death, of which we shall now give some instances. We are informed that Harold, surnamed *Blaatand*, or *Blue-tooth*, a king of Denmark, who lived in the beginning of the ninth century, had founded on the coasts of Pomerania a city named *Julin* or *Jomsburg*. To this place he sent a colony of young Danes, bestowing the government on a celebrated warrior called *Palnatoko*. In this colony it was forbidden to mention the word *fear*, even in the most imminent dangers. No citizen of Jomsburg was to yield to any number of enemies however great. The sight of inevitable death was not to be taken as an excuse for showing the smallest apprehension. And this legislator really appears to have eradicated from the minds of most of the youths bred up under him, all traces of that sentiment so natural and so universal, which makes men think on their destruction with horror. Nothing can show this better than a single fact in their history, which deserves to have place here for its singularity. Some of them having made an irruption into the territories of a powerful Norwegian lord, named *Haquin*, were overcome in spite of the obstinacy of their resistance; and the most distinguished among them being made prisoners, were, according to the custom of those times, condemned to death. The news of this, far from afflicting them, was on the contrary received with joy. The first who was led to punishment was content to say, without changing countenance, and without expressing the least sign of fear, "Why should not the same happen to me as did to my father? He died, and so must I." A warrior, named *Thorchill*, who was to cut off the head of the second, having asked him what he felt at the sight of death, he answered, "that he remembered too well the laws of Jomsburg to utter any words that denoted fear." The third, in reply to the same question, said, "he rejoiced to die with glory; and that he preferred such a death to an infamous life like that of Thorchill's." The fourth made an answer much longer and more extraordinary. "I suffer with a good heart; and the present hour is to me very agreeable. I only beg of you (added he, addressing himself to Thorchill) to be very quick in cutting off my head; for it is a question often debated by us at Jomsburg, whether one retains any sense after being beheaded. I will therefore grasp this knife in my hand; if, after my head is cut off, I strike it towards you, it will show I have not lost all sense; if I let it drop, it will be a proof of the contrary. Make haste therefore, and decide the dispute." Thorchill, adds the historian, cut off his head in a most expeditious manner; but the knife, as might be expected, dropt from his hand. The fifth showed the same tranquillity, and died rallying and jeering his enemies. The sixth begged of Thorchill, that he might not be led to punishment like a sheep; "Strike the blow in my face (said he), I will sit still without shrinking; and take notice whether I once wink my eyes, or betray one sign of fear in my countenance: for we inhabitants of Jomsburg are used to exercise ourselves in trials of this sort, so as to meet the stroke of death without once moving." He kept his promise before all the spectators, and received the blow without betraying the least sign of fear, or so much as winking with his eyes. The seventh, says the historian, was a very beautiful young man, in the flower of his age. His long hair, as fine as silk, floated in curls and ringlets on his shoulders. Thorchill asked him, what he thought of death? "I receive it willingly (said he), since I have fulfilled the greatest duty of life, and have seen all those put to death whom I would not survive. I only beg of you one favour, not to let my hair be touched by a slave, or stained with my blood."

Neither was this intrepidity peculiar to the inhabitants of Jomsburg; it was the general character of all the Scandinavians, of which we shall only give this further instance. A warrior, having been thrown upon his back in wrestling with his enemy, and the latter finding himself without his arms, the vanquished person promised to wait, without changing his posture, till his antagonist fetched a sword to kill him; and he faithfully kept his word.—To die with his arms in his hand was the ardent wish of every free man; and the pleasing idea which they had of this kind of death led them to dread such as proceeded from old age and disease. The history of ancient Scandinavia is full of instances of this way of thinking. The warriors who found themselves lingering in disease, often availed themselves of their few remaining moments to shake off life, by a way that they supposed to be more glorious. Some of them would be carried into a field of battle, that they might die in the engagement. Others slew themselves: many procured this melancholy service to be performed by their friends, who considered it as a most sacred duty. "There is, on a mountain of Iceland, (says the author of an old Iceland romance), a rock so high, that no animal can fall from the top and live. Here men betake themselves when they are afflicted and unhappy. From this place all our ancestors, even without waiting for sickness, have departed into Eden. It is useless, therefore, to give ourselves up to groans and complaints, or to put our relations to needless expenses, since we can easily follow the example of our fathers, who have all gone by the way of this rock."—When all these methods failed, and at last when Christianity had banished such barbarous practices, the disconsolate heroes consoled themselves by putting on complete armour, as soon as they found their end approaching.

SCANDIX, Shepherd's Needle, or *Venus Comb*, a genus of plants, belonging to the pentandria class; and in the natural method ranking under the 45th order, *Umbellatæ*. See Botany *Index*.

SCANNING, in *Poetry*, the measuring of verse by feet, in order to see whether or not the quantities be duly observed. The term is chiefly used in Greek and Latin verses. Thus an hexameter verse is scanned by resolving it into six feet; a pentameter, by resolving it into five feet, &c.

SCANTLING, a measure, size, or standard, by which the dimensions, &c. of things are to be determined. The term is particularly applied to the dimensions

Scantling || Scapula.

sions of any piece of timber, with regard to its breadth and thickness.

SCANTO, or SPAVENTO, a sudden impression of horror upon the mind and body. It is extremely dreaded by the inhabitants of Sicily; and the wild ideas of the vulgar part of the inhabitants respecting it are almost incredible, and their dread of a sudden shock is no less surprising. There is scarce a symptom, disorder, or accident, they do not think may befal the human frame in consequence of the scanto. They are persuaded that a man who has been frightened only by a dog, a viper, a scorpion, or any other creature, which he has an antipathy to, will soon be seized with the same pains he would really feel, had he been torn with their teeth, or wounded with their venomous sting; and that nothing can remove these nervous imaginary pangs but a strong dose of dilena, a species of cantharides found in Sicily.

Swinburne's Travels in the two Sicilies.

SCAPE-GOAT, in the Jewish antiquities, the goat which was set at liberty on the day of solemn expiation. For the ceremonies on this occasion, see Levit. xvi. 5, 6, &c.

Some say, that a piece of scarlet cloth, in form of a tongue, was tied on the forehead of the scapegoat. *Hoff. Lex. Univ. in voc. Lingua.*

Many have been the disputes among the interpreters concerning the meaning of the word *scape-goat*; or rather of *azazel*, for which *scape-goat* is put in our version of the Bible.

Spencer is of opinion, that azazel is a proper name, signifying the devil or evil dæmon. See his reasons in his book *De leg. Hebr. ritual.* Dissert. viii. Among other things, he observes, that the ancient Jews used to substitute the name *Samaël* for *Azazel;* and many of them have ventured to affirm, that at the feast of expiation they were obliged to offer a gift to Samaël to obtain his favour. Thus also the goat, sent into the wilderness to Azazel, was understood to be a gift or oblation. Some Christians have been of the same opinion. But Spencer thinks that the genuine reasons of the ceremony were, 1. That the goat loaded with the sins of the people, and sent to Azazel, might be a symbolical representation of the miserable condition of sinners. 2. God sent the goat thus loaded to the evil dæmons, to show that they were impure, thereby to deter the people from any conversation or familiarity with them. 3. That the goat sent to Azazel, sufficiently expiating all evils, the Israelites might the more willingly abstain from the expiatory sacrifices of the Gentiles.

SCAPEMENT, in clock-work, a general term for the manner of communicating the impulse of the wheels to the pendulum. The ordinary scapements consist of the swing-wheel and pallets only; but modern improvements have added other levers or detents, chiefly for the purposes of diminishing friction, or for detaching the pendulum from the pressure of the wheels during part of the time of its vibration. See *WATCH-work.*

SCAPULA, in *Anatomy*, the shoulder, or shoulder-bone.

SCAPULA, *John*, the reputed author of a Greek lexicon, studied at Lausanne. His name is recorded in the annals of literature, neither on account of his talents nor learning, nor virtuous industry, but for a gross act of disingenuity and fraud which he committed against an eminent literary character of the 16th century. Being employed by Henry Stephens as a corrector to his press while he was publishing his *Thesaurus linguæ Græcæ*, Scapula extracted those words and explications which he reckoned most useful, comprised them in one volume, and published them as an original work, with his own name.

Scapula || Scarborough.

The compilation and printing of the Thesaurus had cost Stephens immense labour and expense; but it was so much admired by those learned men to whom he had shown it, and seemed to be of such essential importance to the acquisition of the Greek language, that he reasonably hoped his labour would be crowned with honour, and the money he had expended would be repaid by a rapid and extensive sale. But before his work came abroad, Scapula's abridgement appeared; which, from its size and price, was quickly purchased, while the Thesaurus itself lay neglected in the author's hands. The consequence was, a bankruptcy on the part of Stephens, while he who had occasioned it was enjoying the fruits of his treachery. Scapula's Lexicon was first printed in 1570, in 4to. It was afterwards enlarged, and published in folio. It has gone through several editions, while the valuable work of Stephens has never been reprinted. Its success is, however, not owing to its superior merit, but to its price and more commodious size. Stephens charges the author with omitting a great many important articles. He accuses him of misunderstanding and perverting his meaning; and of tracing out absurd and trifling etymologies, which he himself had been careful to avoid. He composed the following epigram on Scapula.

Quidam ἐπιτέμνων *me* capulo *tenus abdidit ensem*
Æger eram à Scapulis, *sanus et huc redeo.*

Doctor Busby, so much celebrated for his knowledge of the Greek language, and his success in teaching it, would never permit his scholars at Westminster school to make use of Scapula.

SCAPULAR, in *Anatomy*, the name of two pair of arteries, and as many veins.

SCAPULAR, or *Scapulary*, a part of the habit of several religious orders in the church of Rome, worn over the gown as a badge of peculiar veneration for the Blessed Virgin. It consists of two narrow slips or breadths of cloth covering the back and the breast, and hanging down to the feet.—The devotees of the scapulary celebrate its festival on the 10th of July.

SCARABÆUS, the BEETLE, a genus of insects of the coleoptera order. See ENTOMOLOGY *Index.*

SCARBOROUGH, a town of the north riding of Yorkshire, seated on a steep rock, near which are such craggy cliffs that it is almost inaccessible on every side. On the top of this rock is a large green plain, with two wells of fresh water springing out of the rock. It is greatly frequented on account of its mineral waters called the *Scarborough Spa;* on which account it is much improved in the number and beauty of the buildings. The spring was under the cliff, part of which fell down in 1737, and the water was lost; but in clearing away the ruins in order to rebuild the wharf, it was recovered, to the great joy of the town. The waters of Scarborough are chalybeate and purging. The two wells are both impregnated with the same principles, in different proportions; though the purging well is the most

Scarborough. Scardona.

most celebrated, and the water of this is usually called the *Scarborough water*. When these waters are poured out of one glass into another, they throw up a number of air bubbles; and if they are shaken for some time in a phial close stopped, and the phial be suddenly opened before the commotion ceases, they displode an elastic vapour, with an audible noise, which shows that they abound in fixed air. At the fountain they have a brisk, pungent chalybeate taste; but the purging water tastes bitterish, which is not usually the case with the chalybeate one. They lose their chalybeate virtues by exposure and by keeping; but the purging water the soonest. They both putrefy by keeping; but in time recover their sweetness. Four or five half pints of the purging water drank within an hour, give two or three easy motions, and raise the spirits. The like quantity of the chalybeate purges less, but exhilarates more, and passes off chiefly by urine. These waters have been found beneficial in hectic fevers, weaknesses of the stomach, and indigestion; in relaxations of the system; in nervous, hysteric, and hypochondriacal disorders; in the green sickness, scurvy, rheumatism, and asthmatic complaints; in gleets, the fluor albus, and other preternatural evacuations; and in habitual costiveness. Here are assemblies and balls as at Tunbridge. It is a place of some trade, has a very good harbour, and sends two members to parliament. Population in 1811, 7067. E. Long. 54. 18. N. Lat. 0. 3.

SCARDONA, a sea-port town of Dalmatia, seated on the eastern banks of the river Cherca, with a bishop's see. It has been taken and retaken several times by the Turks and Venetians; and these last ruined the fortifications and its principal buildings in 1537; but they have been since put in a state of defence.

Travels into Dalmatia.

"No vestiges (says Fortis) now remain visible of that ancient city, where the states of Liburnia held their assembly in the times of the Romans. I however transcribed these two beautiful inscriptions, which were discovered some years ago, and are preserved in the house of the reverend canon Mercati. It is to be hoped, that, as the population of Scardona continues increasing, new lands will be broken up, and consequently more frequent discoveries made of the precious monuments of antiquity. And it is to be wished, that the few men of letters, who have a share in the regulation of this reviving city, may bestow some particular attention on that article, so that the honourable memorials of their ancient and illustrious country, which once held so eminent a rank among the Liburnian cities, may not be lost, nor carried away. It is almost a shame, that only six legible inscriptions actually exist at Scardona; and that all the others, since many more certainly must have been dug up there, are either miserably broken, or lost, or transported to Italy, where they lose the greatest part of their merit. Roman coins are very frequently found about Scardona, and several valuable ones were shown to me by that hospitable prelate Monsignor Trevisani, bishop and father of the rising settlement. One of the principal gentlemen of the place was so kind as to give me several sepulchral lamps, which are marked by the name of *Fortis*, and by the elegant form of the letters appear to be of the best times. The repeated devastations to which Scardona has been exposed, have left it no traces of grandeur. It is now, however, beginning to rise again, and many merchants of Servia and Bosnia have settled there, on account of the convenient situation for trade with the upper provinces of Turkey. But the city has no fortifications, notwithstanding the assertion of P. Farlati to the contrary." E. Long. 17. 25. N. Lat. 43. 55.

Scardo || Scarro

SCARIFICATION, in *Surgery*, the operation of making several incisions in the skin by means of lances or other instruments, particularly the cupping instrument. See SURGERY.

SCARLET, a beautiful bright red colour. See DYEING *Index*.

In painting in water-colours, minium mixed with a little vermilion produces a good scarlet: but if a flower in a print is to be painted a scarlet colour, the lights as well as the shades should be covered with minium, and the shaded parts finished with carmine, which will produce an admirable scarlet.

SCARLET-Fever. See MEDICINE *Index*.

SCARP, in *Fortification*, is the interior talus or slope of the ditch next the place, at the foot of the rampart.

SCARP, in *Heraldry*, the scarf which military commanders wear for ornament. It is borne somewhat like a battoon sinister, but is broader than it, and is continued out to the edges of the field, whereas the battoon is cut off at each end.

SCARPANTO, an island of the Archipelago, and one of the Sporades, lying to the south-west of the isle of Rhodes, and to the north-east of that of Candia. It is about 22 miles in length and 8 in breadth; and there are several high mountains. It abounds in cattle and game; and there are mines of iron, quarries of marble, with several good harbours. The Turks are masters of it, but the inhabitants are Greeks.

SCARPE, a river of the Netherlands, which has its source near Aubigny in Artois, where it washes Arras and Douay; after which it runs on the confines of Flanders and Hainault, passing by St Amand, and a little after falls into the Scheldt.

SCARRON, PAUL, a famous burlesque writer, was the son of a counsellor in parliament, and was born at Paris about the end of the year 1610, or in the beginning of the succeeding year. His father marrying a second time, he was compelled to assume the ecclesiastical profession. At the age of 24 he visited Italy, where he freely indulged in licentious pleasures. After his return to Paris he persisted in a life of dissipation till a long and painful disease convinced him that his constitution was almost worn out. At length when engaged in a party of pleasure at the age of 27, he lost *the use of those legs which danced so gracefully, and of those hands which could paint and play on the lute with so much elegance*. In the year 1638 he was attending the carnival at Mons, of which he was a canon. Having dressed himself one day as a savage, his singular appearance excited the curiosity of the children of the town. They followed him in multitudes, and he was obliged to take shelter in a marsh. This wet and cold situation produced a numbness which totally deprived him of the use of his limbs; but notwithstanding this misfortune he continued gay and cheerful. He took up his residence at Paris, and by his pleasant humour soon attracted to his house all the men of wit about the city. The loss of his health was followed by the loss of his fortune. On the death of his father he entered into a process with

with his mother-in-law. He pleaded the cause in a ludicrous manner, though his whole fortune depended on the decision. He accordingly lost the cause. Mademoiselle de Hautefort, compassionating his misfortunes, procured for him an audience of the queen. The poet requested to have the title of *Valetudinarian* to her majesty. The queen smiled, and Scarron considered the smile as the commission to his new office. He therefore assumed the title of *Scarron, by the grace of God, unworthy valetudinarian to the queen.*

Cardinal Mazarine gave him a pension of 500 crowns; but that minister having received disdainfully the dedication of his *Typhon*, the poet immediately wrote a *Mazarinade*, and the pension was withdrawn. He then attached himself to the prince of Condé, and celebrated his victories. He at length formed the extraordinary resolution of marrying, and was accordingly, in 1651, married to Mademoiselle d'Aubigné (afterwards the famous Madame de Maintenon), who was then only 16 years of age. "At that time (says Voltaire) it was considered as a great acquisition for her to gain for a husband a man who was disfigured by nature, impotent, and very little enriched by fortune." When Scarron was questioned about the contract of marriage, he said he acknowledged to the bride two large invincible eyes, a very beautiful shape, two fine hands, and a large portion of wit. The notary demanded what dowry he would give her? Immediately replied Scarron, "The names of the wives of kings die with them, but the name of Scarron's wife shall live for ever." She restrained by her modesty his indecent buffooneries, and the good company which had formerly resorted to his house were not less frequent in their visits. Scarron now became a new man. He became more decent in his manners and conversation: and his gaiety, when tempered with moderation, was still more agreeable. But in the mean time, he lived with so little economy, that his income was soon reduced to a small annuity and his marquisate of Quinet. By the marquisate of Quinet, he meant the revenue he derived from his publications, which were printed by one Quinet. He was accustomed to talk to his superiors with great freedom in his jocular style. In the dedication to his *Don Japhet d'Armenie*, he thus addresses the king. "I shall endeavour to persuade your majesty, that you would do yourself no injury were you to do me a small favour; for in that case I should become more gay: if I should become more gay, I should write sprightly comedies: and if I should write sprightly comedies, your majesty would be amused, and thus your money would not be lost. All this appears so evident, that I should certainly be convinced of it if I were as great a king as I am now a poor unfortunate man."

Though Scarron wrote comedies, he had neither time nor patience to study the rules and models of dramatic poetry. Aristotle and Horace, Plautus and Terence, would have frightened him; and perhaps he did not know that there was ever such a person as Aristophanes. He saw an open path before him, and he followed it. It was the fashion of the times to pillage the Spanish writers. Scarron was acquainted with that language, and he found it easier to use the materials which were already prepared, than to rack his brain in inventing a subject; a restraint to which a genius like his could not easily submit. As he borrowed liberally from the Spanish writers, a dramatic piece did not cost him much labour. His labour consisted not in making his comic characters talk humorously, but in keeping up serious characters; for the serious was a foreign language to him. The great success of his *Jodelet Maître* was a vast allurement to him. The comedians who acted it eagerly requested more of his productions. They were written without much toil, and they procured him large sums. They served to amuse him. If it be necessary to give more reasons for Scarron's readiness to engage in these works, abundance may be had. He dedicated his books to his sister's greyhound bitch; and when she failed him, he dedicated them to a certain Monseigneur, whom he praised higher, but did not much esteem. When the office of historiographer became vacant, he solicited for it without success. At length Fouquet gave him a pension of 1600 livres. Christina queen of Sweden having come to Paris, was anxious to see Scarron. "I permit you (said she to Scarron) to fall in love with me. The queen of France has made you her valetudinarian, and I create you my *Roland*." Scarron did not long enjoy that title: he was seized with so violent a hiccough, that every person thought he would have expired. "If I recover (he said), I will make a fine satire on the hiccough." His gaiety did not forsake him to the last. Within a few minutes of his death, when his domestics were shedding tears about him, "My good friends (says he), I shall never make you weep so much for me as I have made you laugh." Just before expiring, he said, "I could never believe before that it is so easy to laugh at death." He died on the 14th of October 1660, in the 51st year of his age.

His works have been collected and published by Bruzen de la Martiniere, in 10 vols 12mo. 1737. There are, 1. The Eneid travestied, in 8 books. It was afterwards continued by Moreau de Brasey. 2. Typhon, or the Gigantomachia. 3. Many comedies; as Jodelet, or the Master Valet; Jodelet cuffed; Don Japhet d'Armenie; The Ridiculous Heir; Every Man his own Guardian; The Foolish Marquis; The Scholar of Salamanca; The False Appearance; The Prince Corsaire, a tragi-comedy. Besides these, he wrote other pieces in verse. 4. His Comic Romance in prose, which is the only one of his works that deserves attention. It is written with much purity and gaiety, and has contributed not a little to the improvement of the French language. Scarron had great pleasure in reading his works to his friends as he composed them: he called it trying his works. Segrais and another of his friends coming to him one day, "Take a chair (says Scarron to them) and sit down, that I may examine my Comic Romance." When he observed the company laugh, "Very well (said he), my book will be well received since it makes persons of such delicate taste laugh." Nor was he deceived. His Romance had a prodigious run. It was the only one of his works that Boileau could submit to read. 5 Spanish Novels translated into French. 6. A volume of Letters. 7. Poems; consisting of Songs, Epistles, Stanzas, Odes, and Epigrams. The whole collection abounds with sprightliness and gaiety. Scarron can raise a laugh in the most serious subjects; but his sallies are rather those of a buffoon than the effusions of ingenuity and taste. He is continually falling into the mean and the obscene. If we should make any exception

tion in favour of some of his comedies, of some passages in his Eneid travestied, and his Comic Romance, we must acknowledge that all the rest of his works are only fit to be read by footmen and buffoons. It has been said that he was the most eminent man in his age for burlesque. This might make him an agreeable companion to those who choose to laugh away their time; but as he has left nothing that can instruct posterity, he has but little title to posthumous fame.

SCENE, in its primary sense, denoted a theatre, or the place where dramatic pieces and other public shows were exhibited; for it does not appear that the ancient poets were at all acquainted with the modern way of changing the scenes in the different parts of the play, in order to raise the idea of the persons represented by the actors being in different places.

The original scene for acting of plays was as simple as the representations themselves: it consisted only of a plain plot of ground proper for the occasion, which was in some degree shaded by the neighbouring trees, whose branches were made to meet together, and their vacancies supplied with boards, sticks, and the like; and to complete the shelter, these were sometimes covered with skins, and sometimes with only the branches of other trees newly cut down, and full of leaves. Afterwards more artificial scenes, or scenical representations, were introduced, and paintings used instead of the objects themselves. Scenes were then of three sorts; tragic, comic, and satiric. The tragic scene represented stately magnificent edifices, with decorations of pillars, statues, and other things suitable to the palaces of kings: the comic exhibited private houses with balconies and windows, in imitation of common buildings: and the satiric was the representation of groves, mountains, dens, and other rural appearances; and these decorations either turned on pivots, or slid along grooves as those in our theatres.

To keep close to nature and probability, the scene should never be shifted from place to place in the course of the play: the ancients were pretty severe in this respect, particularly Terence, in some of whose plays the scene never shifts at all, but the whole is transacted at the door of some old man's house, whither with inimitable art he occasionally brings the actors. The French are pretty strict with respect to this rule; but the English pay very little regard to it.

SCENÈ is also a part or division of a dramatic poem. Thus plays are divided into acts, and acts are again subdivided into scenes; in which sense the scene is properly the persons present at or concerned in the action on the stage at such a time: whenever, therefore, a new actor appears, or an old one disappears, the action is changed into other hands; and therefore a new scene then commences.

It is one of the laws of the stage, that the scenes be well connected; that is, that one succeed another in such a manner as that the stage be never quite empty till the end of the act. See POETRY.

SCENOGRAPHY, (from the Greek σκηνη, *scene*, and γραφη, *description*), in perspective, a representation of a body on a perspective plane; or a description thereof in all its dimensions, such as it appears to the eye. See PERSPECTIVE.

SCEPTIC, σκηπτικος, from σκεπτομαι, "I consider, look about, or deliberate," properly signifies *considerative* and *inquisitive*, or one who is always weighing reasons on one side and the other, without ever deciding between them. It is chiefly applied to an ancient sect of philosophers founded by Pyrrho (see PYRRHO), who, according to Laertius, had various other denominations. From their master they were called *Pyrrhonians*; from the distinguishing tenets or characteristic of their philosophy they derived the name of *Aporetici*, from απορειν, "to doubt;" from their suspension and hesitation they were called *ephectici*, from επεχειν, "to stay or keep back:" and lastly, they were called *zetetici*, or *seekers*, from their never getting beyond the search of truth.

That the sceptical philosophy is absurd, can admit of no dispute in the present age; and that many of the followers of Pyrrho carried it to the most ridiculous height, is no less true. But we cannot believe that he himself was so extravagantly sceptical as has sometimes been asserted, when we reflect on the particulars of his life, which are still preserved, and the respectful manner in which we find him mentioned by his contemporaries and writers of the first name who flourished soon after him. The truth, as far as at this distance of time it can be discovered, seems to be, that he learned from Democritus to deny the real existence of all qualities in bodies, except those which are essential to primary atoms, and that he referred every thing else to the perceptions of the mind produced by external objects, in other words, to appearance and opinion. All knowledge of course appeared to him to depend on the fallacious report of the senses, and consequently to be uncertain; and in this notion he was confirmed by the general spirit of the Eleatic school in which he was educated. He was further confirmed in his scepticism by the subtilties of the Dialectic school in which he had been instructed by the son of Stilpo; choosing to overturn the cavils of sophistry by recurring to the doctrine of universal uncertainty, and thus breaking the knot which he could not unloose. For being naturally and habitually inclined to consider immoveable tranquillity as the great end of all philosophy, he was easily led to despise the dissensions of the dogmatists, and to infer from their endless disputes, the uncertainty of the questions on which they debated; controversy, as it has often happened to others, becoming also with respect to him the parent of scepticism.

Pyrrho's doctrines, however new and extraordinary, were not totally disregarded. He was attended by several scholars, and succeeded by several followers, who preserved the memory of his notions. The most eminent of his followers was Timon (see TIMON), in whom the public succession of professors in the Pyrrhonic school terminated. In the time of Cicero it was almost extinct, having suffered much from the jealousy of the dogmatists, and from a natural aversion in the human mind to acknowledge total ignorance, or to be left in absolute darkness. The disciples of Timon, however, still continued to profess scepticism, and their notions were embraced privately at least by many others. The school itself was afterwards revived by Ptolæmeus a Cyrenian, and was continued by Ænesidemus a contemporary of Cicero, who wrote a treatise on the principles of the Pyrrhonic philosophy, the heads of which are preserved by Photius. From this time it was continued through a series of preceptors of little note to Sextus Empiricus, who also gave a summary of the sceptical doctrine.

Sceptic.

A system of philosophy thus founded on doubt, and clouded with uncertainty, could neither teach tenets of any importance, nor prescribe a certain rule of conduct; and accordingly we find that the followers of scepticism were guided entirely by chance. As they could form no certain judgment respecting good and evil, they accidentally learned the folly of eagerly pursuing any apparent good, or of avoiding any apparent evil; and their minds of course settled into a state of undisturbed tranquillity, the grand postulatum of their system.

In the schools of the sceptics we find ten distinct topics of argument urged in support of the doctrine of uncertainty, with this precaution, however, that nothing could be positively asserted either concerning their number or their force. These arguments chiefly respect objects of sense: they place all knowledge in appearance: and, as the same things appear very different to different people, it is impossible to say which appearance most truly expresses their real nature. They likewise say, that our judgment is liable to uncertainty from the circumstance of frequent or rare occurrence, and that mankind are continually led into different conceptions concerning the same thing by means of custom, law, fabulous tales, and established opinions. On all these accounts, they think every human judgment is liable to uncertainty; and, concerning any thing, they can only assert, that it seems to be, not that it is what it seems.

This doubtful reasoning, if reasoning it may be called, the sceptics extended to all the sciences, in which they discovered nothing true, or which could be absolutely asserted. In all nature, in physics, morals, and theology, they found contradictory opinions, and inexplicable or incomprehensible phenomena. In physics, the appearances they thought might be deceitful; and respecting the nature of God and the duties of morality, men were, in their opinion, equally ignorant and uncertain. To overturn the sophistical arguments of these sceptical reasoners, would be no difficult matter, if their reasoning were worthy of confutation. Indeed, the great principle is sufficiently, though shortly refuted by Plato, in these words. "When you say all things are incomprehensible (says he), do you comprehend or conceive that they are thus incomprehensible, or do you not? If you do, then something is comprehensible; if you do not, there is no reason we should believe you, since you do not comprehend your own assertion."

But scepticism has not been confined entirely to the ancients and to the followers of Pyrrho. Numerous sceptics have arisen also in modern times, varying in their principles, manners, and character, as chance, prejudice, vanity, weakness, or indolence, prompted them. The great object, however, which they seem to have in view, is to overturn, or at least to weaken, the evidence of analogy, experience, and testimony; though some of them have even attempted to show, that the axioms of geometry are uncertain, and its demonstrations inconclusive. This last attempt has not indeed been often made; but the chief aim of Mr Hume's philosophical writings is to introduce doubts into every branch of *physics*, *metaphysics*, *history*, *ethics*, and *theology*. It is needless to give a specimen of his reasonings in support of modern scepticism. The most important of them have been noticed elsewhere (see MIRACLE, METAPHYSICS, and PHILOSOPHY, N° 41.); and such of our readers as have any relish for speculations of that nature can be no strangers to his Essays, or to the able confutations of them by the Doctors Reid, Campbell, Gregory, and Beattie, who have likewise exposed the weakness of the sceptical reasonings of Des Cartes, Malbranche, and other philosophers of great fame in the same school.

Sceptic || Schaffhausen.

SCEPTICISM, the doctrines and opinions of the sceptics. See the preceding article.

SCEPTRE, a kind of royal staff, or batoon, borne on solemn occasions by Kings, as a badge of their command and authority. Nicod derives the word from the Greek σκηπτρον, which he says originally signified "a javelin," which the ancient kings usually bore as a badge of their authority; that instrument being in very great veneration among the heathens. But σκηπτρον does not properly signify a javelin, but *a staff to rest upon*, from σκηπτω, *innitor*, "I lean upon." Accordingly, in the simplicity of the earlier ages of the world, the sceptres of kings were no other than long walking-staves: and Ovid, in speaking of Jupiter, describes him as resting on his sceptre (Met. i. ver. 178.) The sceptre is an ensign of royalty of greater antiquity than the crown. The Greek tragic and other poets put sceptres in the hands of the most ancient kings they ever introduce. Justin observes, that the sceptre, in its original, was a *hasta*, or spear. He adds, that, in the most remote antiquity, men adored the *hastæ* or sceptres as immortal gods; and that it was upon this account, that, even in his time, they still furnished the gods with sceptres.—Neptune's sceptre is his trident. Tarquin the Elder was the first who assumed the sceptre among the Romans. Le Gendre tells us, that, in the first race of the French kings, the sceptre was a golden rod, almost always of the same height with the king who bore it, and crooked at one end like a crozier. Frequently instead of a sceptre, kings are seen on medals with a palm in their hand. See REGALIA.

SCHÆFFERA, a genus of plants belonging to the diœcia class; and in the natural method ranking with those that are doubtful. See BOTANY *Index*.

SCHAFFHAUSEN, the smallest canton of Switzerland, bounded on the north and west by Suabia, on the east by the canton of Zurich and the bishopric of Constance, and on the south by the same and Thurgau. It is about 15 miles long and 9 broad, and its population amounts to about 30,000. Its revenues are not extensive, as one proof of which the burgomaster or chief has not more than 150*l.* a year. The reformation was introduced before the middle of the 16th century. The clergy are paid by the state, the highest incomes not exceeding 100*l.* and the lowest 10*l.* annually. Sumptuary laws are in force, as well as in most other parts of Switzerland; and no dancing is allowed except on very particular occasions. Wine is their chief article of commerce, which they exchange with Suabia for corn, as this canton produces very little of that necessary article.

SCHAFFHAUSEN, a town of Switzerland, the metropolis of a canton of the same name. It is seated on the Rhine, and owes its origin to the interruption of the navigation of that river by the cataract at Lauffen. It was at one period an imperial town, and admitted a member

member of the Helvetic confederacy in 1501; and its territory forms the 12th canton in point of rank. The inhabitants of this town are computed at 6000, but the number of citizens or burgesses is about 1600. From these were elected 85 members, who formed the great and little council; the senate, or little council of 25, being entrusted with the executive power; and the great council finally deciding all appeals, and regulating the more important concerns of government. Though a frontier town, it has no garrison, and the fortifications are weak; but it once had a famous wooden bridge over the Rhine, the work of one Ulric Grubenman, a carpenter. The sides and top of it were covered; and it was a kind of hanging bridge; the road was nearly level, and not carried, as usual, over the top of the arch, but let into the middle of it, and there suspended. This curious bridge was burnt by the French, when they evacuated Schaffhausen, after being defeated by the Austrians, April 13. 1799 Schaffhausen is 22 miles north by east of Zurich, and 39 east of Basil. Long. 3° 41′ E. Lat. 47° 39′ N.

SCHALBEA, a genus of plants belonging to the didynamia class. See BOTANY *Index*.

SCHEDULE, a scroll of paper or parchment, annexed to a will, lease, or other deed; containing an inventory of goods, or some other matter omitted in the body of the deed. The word is a diminutive of the Latin *scheda*, or Greek σχέδη, a leaf or piece of paper.

SCHEELE, CHARLES WILLIAM, was born on the 19th of December 1742, at Stralsund, where his father kept a shop. When he was very young, he received the usual instructions of a private school; and was afterwards advanced to an academy. At a very early age he showed a strong desire to follow the profession of an apothecary, and his father suffered him to gratify his inclinations. With Mr Bauch, an apothecary at Gottenburg, he passed his apprenticeship, which was completed in six years. He remained, however, some time longer at that place, and it was there that he so excellently laid the first foundations of his knowledge. Among the various books which he read, that treated of chemical subjects, Kunckell's Laboratory seems to have been his favourite. He used to repeat many of the experiments contained in that work privately in the night, when the rest of the family had retired to rest. A friend of Scheele's had remarked the progress which he had made in chemistry, and had asked him by what inducements he had been at first led to study a science in which he had gained such knowledge? Scheele returned the following answer: "The first cause, my friend, arose from yourself. Nearly at the beginning of my apprenticeship you advised me to read Neuman's Chemistry, from the perusal of which I became eager to make experiments myself; and I remember very well how I mixed together, in a conserve-glass, oil of cloves, and fuming acid of nitre, which immediately took fire. I see also still before my eyes an unlucky experiment which I made with pyrophorus. Circumstances of this kind did but the more inflame my desire to repeat experiments." After Scheele's departure from Gottenburg, in the year 1765, he obtained a place with Kalstrom, an apothecary at Malmo. Two years afterwards he went from thence to Stockholm, and managed the shop of Mr Scharenberg. In 1773, he changed this appointment for another at Upsal, under Mr Loock. Here he was fortunately situated; as, from his acquaintance with learned men, and from having free access to the university laboratory, he had opportunities of increasing his knowledge. At this place also he happily commenced the friendship which subsisted between him and Bergman. During his residence at this place, his Royal Highness Prince Henry of Prussia, accompanied by the Duke of Sudermania, visited Upsal, and chose this opportunity to see the academical laboratory. Scheele was accordingly appointed by the university to exhibit some chemical experiments to them. This office he undertook, and showed some of the most curious processes in chemistry. The two princes asked him many questions, and expressed their approbation of the answers which he returned to them. The duke asked him what countryman he was, and seemed to be much pleased when Scheele informed him that he was born at Stralsund. At their departure they told the professor, who was present, that they should esteem it a favour if he would permit the young man to have free access to the laboratory, as often as he chose to make experiments.

In the year 1777 Scheele was appointed by the Medical College to be apothecary at Koping. It was at that place that he soon showed the world how great a man he was, and that no place or situation could confine his abilities. When he was at Stockholm he showed his acuteness as a chemist, as he discovered there the new and wonderful acid contained in the fluor spar. It has been confidently asserted, that Scheele was the first who discovered the nature of the aerial acid; and that whilst he was at Upsal he made many experiments to prove its properties. This circumstance might probably have furnished Bergman with the means of treating this subject more fully. At the same place he began the series of excellent experiments on that remarkable mineral substance, manganese; from which investigation he was led to make the very valuable and interesting discovery of oxymuriatic acid. At the same time he examined the properties of ponderous earth.

At Koping he finished his dissertation on Air and Fire; a work which the celebrated Bergman most warmly recommended in the friendly preface which he wrote for it. The theory which Scheele endeavours to prove in this treatise is, that fire consists of pure air and phlogiston. According to more recent opinions (if inflammable air be phlogiston), water is composed of these two principles. Of these opinions we may say, in the words of Cicero, "*Opiniones tam variæ sunt tamque inter se dissidentes ut alterum profecto fieri potest, ut earum nulla, alterum certe, non potest ut plus una, vera sit.*" The author's merit in this work, exclusive of the encomiums of Bergman, was sufficient to obtain the approbation of the public; as the ingenuity displayed in treating so delicate a subject, and the many new and valuable observations (A) which are dispersed through the treatise, justly

(A) Scheele mentions in this work, in a cursory way, the decomposition of common salt by the calx of lead. Mr Turner,

Scheele. justly entitled the author to that fame which his book procured him. It was spread abroad through every country, became soon out of print, was reprinted, and translated into many languages. The English translation is enriched with the notes of that accurate and truly philosophic genius Richard Kirwan, Esq.

Scheele now diligently employed himself in contributing to the Transactions of the Academy at Stockholm. He first pointed out a new way to prepare the salt of benzoin. In the same year he discovered that arsenic, freed in a particular manner from phlogiston, partakes of all the properties of an acid, and has its peculiar affinities to other substances.

In a Dissertation on Flint, Clay, and Alum, he clearly overturned Beaumé's opinion of the identity of the siliceous and argillaceous earths. He published an Analysis of the Human Calculus. He showed also a mode of preparing mercurius dulcis in the humid way, and improved the process of making the powder of Algaroth. He analyzed the mineral substance called *molybdena* or flexible black lead. He discovered a beautiful green pigment. He showed us how to decompose the air of the atmosphere. He discovered that some neutral salts are decomposed by lime and iron. He decomposed plumbago, or the common black lead. He observed, with pecular ingenuity, an acid in milk, which decomposes acetated alkali; and in his experiments on the sugar of milk, he discovered another acid, different in some respects from the above-mentioned acids and the common acid of sugar. He accomplished the decomposition of tungsten, the component parts of which were before unknown, and found in it a peculiar metallic acid united to lime. He published an excellent dissertation on the different sorts of ether. He found out an easy way to preserve vinegar for many years. His investigation of the colouring matter in Prussian blue, the means he employed to separate it, and his discovery that alkali, sal ammoniac, and charcoal, mixed together, will produce it, are strong marks of his penetration and genius. He found out a peculiar sweet matter in expressed oils, after they have been boiled with litharge and water. He showed how the acid of lemons may be obtained in crystals. He found the white powder in rhubarb, which Model thought to be selenite, and which amounts to one seventh of the weight of the root, to be calcareous earth, united to the acid of sorrel. This suggested to him the examination of the acid of sorrel. He precipitated acetate of lead with it, and decomposed the precipitate thus obtained by the vitriolic acid; and by this process he obtained the common acid of sugar; and by slowly dropping a solution of fixed alkali into a solution of the acid of sugar, he regenerated the acid of sorrel.—From his examination of the acids contained in fruits and berries, he found not one species of acid alone, viz. the acid of lemon, but another also, which he denominated the malaceous or malic acid, from its being found in the greatest quantity in apples.

By the decomposition of Bergman's new metal (siderite) he showed the truth of Meyer's and Klaproth's conjecture concerning it. He boiled the calx of siderite with alkali of tartar, and precipitated nitrate of mercury by the middle salt which he obtained by this operation; the calx of mercury which was precipitated was found to be united to the acid of phosphorus; so that he demonstrates that this calx was phosphorated iron. He found also, that the native Prussian blue contained the same acid. He discovered by the same means, that the perlate acid, as it was called, was not an acid *sui generis*, but the phosphoric united to a small quantity of the mineral alkali. He suggested an improvement in the process for obtaining magnesia from Epsom salt; he advises the adding of an equal weight of common salt to the Epsom salt, so that an equal weight of Glauber's salt may be obtained; but this will not succeed unless in the cold of winter. These are the valuable discoveries of this great philosopher, which are to be found in the Transactions of the Royal Society at Stockholm. Most of his essays have been published in French by Madame Picardet, and Mons. Morveau of Dijon. Dr Beddoes also has made a very valuable present to his countrymen of an English translation of a greater part of Scheele's dissertations, to which he has added some useful and ingenious notes. The following discoveries of Scheele are not, we believe, published with the rest. He showed what that substance is, which has been generally called 'the earth of the fluor spar.' It is not produced unless the fluor acid meet with siliceous earth. It appears from Scheele's experiments to be a triple salt, consisting of flint, acid of fluor, and fixed alkali. Scheele proved also, that the fluor acid may be produced without any addition of the vitriolic or any mineral acid: The fluor is melted with fixed alkali, and the fluorated alkali is decomposed by acetated lead. If the precipitate be mixed with charcoal dust, and exposed in a retort to a strong heat, the lead will be revived, and the acid of fluor, which was united to it, will pass into the receiver possessed of all its usual properties. This seems to be an ingenious and unanswerable proof of its existence.

He observed, that no pyrophorus can be made unless an alkali be present; and the reason why it can be prepared from alum and coal is, that the common alum always contains a little alkali, which is added in order to make it crystallize; for if this be separated from it, no pyrophorus can be procured from it. His last dissertation was his very valuable observations on the acid of the gall-nut. Ehrhart, one of Scheele's most intimate friends, asserts, that he was the discoverer of both of the acids of sugar and tartar. We are also indebted to him for that masterpiece of chemical decomposition, the separation of the acid of phosphorus from bones. This appears

Turner, a gentleman who happily unites the skill of the manufacturer with the knowledge of the philosophic chemist, has also the merit of this discovery, as he observed the same fact, without having been indebted to Scheele's hint on the subject. Mr Turner has done more; he has converted this discovery to some use in the arts; he produces mineral alkali for sale, arising from the decomposition; and from the lead which is united to the marine acid he forms the beautiful pigment called the *patent yellow*.

pears from a letter which Scheele wrote to Gahn, who has generally had the reputation of this great discovery. This acid, which is so curious in the eye of the chemist, begins to draw the attention of the physician. It was first used in medicine, united to the mineral alkali, by the ingenious Dr Pearson. The value of this addition to the materia medica cannot be better evinced than from the increase of the demand for it, and the quantity of it which is now prepared and sold in London.

We may stamp the character of Scheele as a philosopher from his many and important discoveries. What concerns him as a man we are informed of by his friends, who affirm, that his moral character was irreproachable. From his outward appearance, you would not at first sight have judged him to be a man of extraordinary abilities; but there was a quickness in his eye, which, to an accurate observer, would point out the penetration of his mind. He mixed but little with the crowd of common acquaintance; for this he had neither time nor inclination, as, when his profession permitted him, he was for the most part employed in his experimental inquiries. But he had a soul for friendship; nor could even his philosophical pursuits withhold him from truly enjoying the society of those whom he could esteem and love. Before he adopted any opinion, or a particular theory, he considered it with the greatest attention; but when once his sentiments were fixed, he adhered to them, and defended them with resolution. Not but that he was ingenuous enough to suffer himself to be convinced by weighty objections; as he has shown that he was open to conviction.

His chemical apparatus was neither neat nor convenient; his laboratory was small and confined; nor was he particular in regard to the vessels which he employed in his experiments, as often the first phial which came to hand was placed in his sand heat; so that we may justly wonder how such discoveries, and such elegant experiments, could have been made under such unfavourable circumstances. He understood none of the modern languages except the German and Swedish; so that he had not the advantage of being benefited by the early intelligence of discoveries made by foreigners, but was forced to wait till the intelligence was conveyed to him in the slow and uncertain channel of translation. The important services which Scheele did to natural philosophy entitled him to universal reputation; and he obtained it: his name was well known by all Europe; and he was member of several learned academies and philosophical societies.

It was often wished that he would quit his retirement at Koping, and move in a larger sphere. It was suggested to him, that a place might be procured in England, which might afford him a good income and more leisure; and, indeed, latterly an offer was made to him of an annuity of 300*l.* if he would settle in this country. But death, alas! put an end to this project. For half a year before this melancholy event, his health had been declining, and he himself was sensible that he would not recover. On the 19th of May 1786, he was confined to his bed; on the 21st he bequeathed all of which he was possessed to his wife (who was the widow of his predecessor at Koping, and whom he had lately married); and on the same day he departed this life. So the world lost, in less than two years, Bergman and Scheele, of whom Sweden may justly boast; two philosophers, who were beloved and lamented by all their contemporaries, and whose memory posterity will never cease most gratefully to revere.

SCHEINER, Christopher, a German mathematician, astronomer, and Jesuit, eminent for being the first who discovered spots on the sun, was born at Schwaben in the territory of Middleheim in 1575. He first discovered spots on the sun's disk in 1611, and made observations on these phenomena at Rome, until at length reducing them to order, he published them in one volume folio in 1630. He wrote also some smaller things relating to mathematics and philosophy; and died in 1660.

SCHELD, a river which rises on the confines of Picardy, and runs north-east by Cambray, Valenciennes, Tournay, Oudenarde, &c. and receiving the Lis at Ghent, runs east by Dendermond, and then north to Antwerp: below which city it divides into two branches, one called *the Wester-Scheld*, which separates Flanders from Zealand, and discharges itself into the sea near Flushing; and the other called *the Oster-Scheld*, which runs by Bergen-op-zoom, and afterwards between the islands Beveland and Schowen, and a little below falls in the sea.

SCHEME, a draught or representation of any geometrical or astronomical figure, or problem, by lines sensible to the eye; or of the celestial bodies in their proper places for any moment; otherwise called a diagram.

SCHEMNITZ, a town of Upper Hungary, with three castles. It is famous for mines of silver and other metals, as also for hot baths. Near it is a rock of a shining blue colour mixed with green, and some spots of yellow. E. Long. 19. 0. N. Lat. 48. 40.

SCHERARDIA, a genus of plants belonging to the tetrandria class. See Botany *Index*.

SCHETLAND. See Shetland.

SCHEUCHZERIA, a genus of plants belonging to the hexandria class; and in the natural method ranking under the fifth order, *Tripetaloideæ*. See Botany *Index*.

SCHIECHS, or Schech, among the Arabs, is a name applied to their nobles. "Among the Bedouins," says Niebuhr, "it belongs to every noble, whether of the highest or the lowest order. Their nobles are very numerous, and compose in a manner the whole nation: the plebeians are invariably actuated and guided by the schiechs, who superintend and direct in every transaction. The schiechs, and their subjects, are born to the life of shepherds and soldiers. The greater tribes rear many camels, which they either sell to their neighbours, or employ them in the carriage of goods, or in military expeditions. The petty tribes keep flocks of sheep. Among those tribes which apply to agriculture, the schiechs live always in tents, and leave the culture of their grounds to their subjects, whose dwellings are wretched huts. Schiechs always ride on horses or dromedaries, inspecting the conduct of their subjects, visiting their friends, or hunting. Traversing the desert, where the horizon is wide as on the ocean, they perceive travellers at a distance. As travellers are seldom to be met with in those wild tracts, they easily discover such as pass that way, and are tempted to pillage them when they find their own party the strongest."

SCHINUS, a genus of plants belonging to the diœcia class;

class; and in the natural method ranking under the 43d order, *Dumosæ*. See BOTANY *Index*.

SCHIRAS, or SCHIRAUZ, a large and famous town of Persia, capital of Farsistan, is three miles in length from east to west, but not so much in breadth. It is seated at the north-west end of a spacious plain surrounded with very high hills, under one of which the town stands. The houses are built of bricks dried in the sun; the roofs are flat and terraced. There are 15 handsome mosques, tiled with stones of a bluish green colour, and lined within with black polished marble. There are many large and beautiful gardens, surrounded with walls 14 feet high, and four thick. They contain various kinds of very fine trees, with fruits almost of every kind, besides various beautiful flowers. The wines of Schiras are not only the best in Persia, but, as some think, in the whole world. The women are much addicted to gallantry, and Schiras is called *an earthly paradise* by some. The ruins of the famous Persepolis are 30 miles to the north-east of this place. E. Long. 56. 0. N. Lat. 29. 36.

SCHISM, (from the Greek, σχισμα, *cliff*, *fissure*), in its general acceptation signifies *division* or *separation*; but is chiefly used in speaking of separations happening from diversity of opinions among people of the same religion and faith.

Thus we say the *schism* of the ten tribes of Judah and Benjamin, the *schism* of the Persians from the Turks and other Mahometans, &c.

Among eccesiastical authors, the great schism of the West is that which happened in the times of Clement VII. and Urban VI. which divided the church for 40 or 50 years, and was at length ended by the election of Martin V. at the council of Constance.

The Romanists number 34 schisms in their church. —They bestow the name *English schism* on the reformation of religion in this kingdom. Those of the church of England apply the term *schism* to the separation of the nonconformists, viz. the presbyterians, independents, and anabaptists, for a further reformation.

SCHISTUS, in *Mineralogy*, a name given to several kinds of stones, as argillaceous, siliceous, bituminous, schistus, &c See MINERALOGY *Index*.

SCHMIEDELIA, a genus of plants belonging to the octandria class. See BOTANY *Index*.

SCHOENOBATES, (from the Greek, σχοινος *a rope*; and βαινω, *I walk*), a name which the Greeks gave to their rope-dancers: by the Romans called *funambuli*. See ROPE-DANCER and FUNAMBULUS.

The *schœnobates* were slaves whose masters made money of them, by entertaining the people with their feats of activity. *Mercurialis de arte gymnastica*, lib. iii. gives us five figures of *schœnobates* engraven after ancient stones.

SCHOENUS, a genus of plants belonging to the triandria class; and in the natural method ranking under the 3d order, *Calamariæ*. See BOTANY *Index*.

SCHOLASTIC, something belonging to the school. See SCHOOL.

SCHOLASTIC Divinity, is that part or species of divinity which clears and discusses questions by reason and arguments; in which sense it stands, in some measure, opposed to *positive divinity*, which is founded on the authority of fathers, councils, &c. The school-divinity is now fallen into contempt; and is scarce regarded anywhere but in some of the universities, where they are still by their charters obliged to teach it.

SCHOLIAST, or COMMENTATOR, a grammarian who writes *scholia*, that is, notes, glosses, &c. upon ancient authors who have written in the learned languages. See the next article.

SCHOLIUM, a note, annotation, or remark, occasionally made on some passage, proposition, or the like. This term is much used in geometry and other parts of mathematics, where, after demonstrating a proposition, it is customary to point out how it might be done some other way, or to give some advice or precaution in order to prevent mistakes, or add some particular use or application thereof.

SCHOMBERG, FREDERICK-ARMAND DUKE OF, a distinguished officer, sprung from an illustrious family in Germany, and the son of Count Schomberg by an English lady, daughter of Lord Dudley, was born in 1608. He was initiated into the military life under Frederick-Henry prince of Orange, and afterwards served under his son William II. of Orange, who highly esteemed him. He then repaired to the court of France, where his reputation was so well known, that he obtained the government of Gravelines, of Furnes, and the surrounding countries. He was reckoned inferior to no general in that kingdom except Mareschal Turenne and the prince of Condé; men of such exalted eminence that it was no disgrace to acknowledge their superiority. The French court thinking it necessary to diminish the power of Spain, sent Schomberg to the assistance of the Portuguese, who were engaged in a war with that country respecting the succession to their throne.—Schomberg's military talents gave a turn to the war in favour of his allies. The court of Spain was obliged to solicit for peace in 1668, and to acknowledge the house of Braganza as the just heirs to the throne of Portugal. For his great services he was created Count Mentola in Portugal; and a pension of 5000*l*. was bestowed upon him, with the reversion to his heirs.

In 1673 he came over to England to command the army; but the English at that time being disgusted with the French nation, Schomberg was suspected of coming over with a design to corrupt the army, and bring it under French discipline. He therefore found it necessary to return to France, which he soon left, and went to the Netherlands. In the month of June 1676, he forced the prince of Orange to raise the siege of Maestricht; and it is said he was then raised to the rank of Mareschal of France. But the French *Dictionnaire Historique*, whose information on a point of this nature ought to be authentic, says, that he was invested with this honour the same year in which he took the fortress of Bellegarde from the Spaniards while serving in Portugal.

Upon the revocation of the edict of Nantes, when the persecution commenced against the Protestants, Schomberg, who was of that persuasion, requested leave to retire into his own country. This request was refused; but he was permitted to take refuge in Portugal, where he had reason to expect he would be kindly received on account of past services. But the religious zeal of the Portuguese, though it did not prevent them from accepting assistance from a heretic when their kingdom

Schomberg. kingdom was threatened with subversion, could not permit them to give him shelter when he came for protection. The Inquisition interfered, and obliged the king to send him away. He then went to Holland by the way of England. Having accepted an invitation from the elector of Brandenburg, he was invested with the government of Ducal Prussia, and appointed commander in chief of the elector's forces. When the prince of Orange sailed to England to take possession of the crown which his father-in-law James II. had abdicated, Schomberg obtained permission from the elector of Brandenburg to accompany him. He is supposed to have been the author of an ingenious stratagem which the prince employed after his arrival in London to discover the sentiments of the people respecting the revolution. The stratagem was, to spread an alarm over the country that the Irish were approaching with fire and sword. When the prince was established on the throne of England, Schomberg was appointed commander in chief of the forces, and master of the ordnance. In April 1689 he was made knight of the Garter, and naturalized by act of parliament; and in May following was created a baron, earl, marquis, and duke of the kingdom of England, by the name and title of Baron Teys, earl of Brentford, marquis of Harwich, and duke of Schomberg. The House of Commons voted to him 100,000*l.* as a reward for his services. Of this he only received a small part; but after his death a pension of 5000*l.* a year was bestowed upon his son.

In August 1689 he was sent to Ireland to reduce that kingdom to obedience. When he arrived, he found himself at the head of an army consisting only of 12,000 foot and 2000 horse, while King James commanded an army three times more numerous. Schomberg thought it dangerous to engage with so superior a force, and being disappointed in his promised supplies from England, judged it prudent to remain on the defensive. He therefore posted himself at Dundalk, about five or six miles distance from James, who was encamped at Ardee. For six weeks he remained in this position, without attempting to give battle, while from the wetness of the season he lost nearly the half of his army. Schomberg was much blamed for not coming to action; but some excellent judges admired his conduct as a display of great military talents. Had he risked an engagement, and been defeated, Ireland would have been lost. At the famous battle of the Boyne, fought on the 1st July 1690, which decided the fate of James, Schomberg passed the river at the head of his cavalry, defeated eight squadrons of the enemy, and broke the Irish infantry. When the French protestants lost their commander, Schomberg went to rally and lead them on to charge. While thus engaged, a party of King James's guards, which had been separated from the rest, passed Schomberg, in attempting to rejoin their own army. They attacked him with great fury, and gave him two wounds in the head. As the wounds were not dangerous, he might soon have recovered from them; but the French Protestants, perhaps thinking their general was killed, immediately fired upon the guards, and shot him dead on the spot. He was buried in St Patrick's cathedral.

Bishop Burnet says, Schomberg was "a calm man, of great application and conduct, and thought much better than he spoke; of true judgment, of exact probity, and of a humble and obliging temper." Schomberg. School.

SCHOOL, a public place, wherein the languages, the arts, or sciences, are taught. Thus we say, a grammar *school*, a writing *school*, a *school* of natural philosophy, &c.—The word is formed from the Latin *schola*, which, according to Du Cange, signifies *discipline* and *correction*: he adds, that it was anciently used, in general, for all places where several persons met together, either to study, to converse, or do any other matter. Accordingly, there were *scholæ palatinæ*, being the several posts wherein the emperor's guards were placed; *schola scutariorum*, *schola gentilium*, &c. At length the term passed also to civil magistrates; and accordingly in the code we meet with *schola chartulariorum*, *schola agentium*, &c.; and even to ecclesiastics, as *schola cantorum*, *schola sacerdotum*, &c.

The Hebrews were always very diligent to teach and study the laws that they had received from Moses. The father of the family studied and taught them in his own family. The Rabbin taught them in the temple, in the synagogues, and in the academies. They pretend, that even before the deluge there were schools for knowledge and piety, of which the patriarchs had the direction.—They place Adam at their head, then Enoch, and lastly Noah. Melchisedec, as they say, kept a school in the city of Kajrath-sepher, otherwise Hebron, in Palestine. Abraham, who had been instructed by Heber, taught in Chaldæa and in Egypt. From him the Egyptians learned astronomy and arithmetic. Jacob succeeded Abraham in the office of teaching. The scripture says, he was "a plain man, dwelling in tents;" which, according to the Chaldee paraphrast, is, "that he was a perfect man, and a minister of the house of docrine."

All this, indeed, must be very precarious and uncertain. It cannot be doubted but that Moses, Aaron, and the elders of Israel, instructed the people in the wilderness, and that many good Israelites were very industrious to instruct their families in the fear of God. But all this does not prove to us that there were any such schools as we are now inquiring after. Under Joshua we see a kind of academy of the prophets, where the children of the prophets, that is, their disciples, lived in the exercise of a retired and austere life, in study, in the meditation and reading of the law of God. There were schools of the prophets at Naioth in Ramah; 1 Sam. xix. 12, 20, &c. See the article PROPHET.

These schools, or societies of the prophets, were succeeded by the synagogues. See the article SYNAGOGUE.

Charity-Schools, are those schools which are set apart by public contributions or private donations for the instruction of poor children, who could not otherwise enjoy the benefits of education. In no country are these more numerous than in Great Britain, where charity and benevolence are characteristic of the nation at large. The following is a summary view of the number of charity-schools in Great Britain and Ireland, according to the best information at present, 1795.

At

	Schools.	Boys.	Girls.
At London - -	182	4442	2870
In other parts of South Britain - -	1329	19506	3915
In North Britain by the account published in 1786,	135	5187	2618
In Ireland, for teaching to read and write only -	168	2406	600
In ditto, erected pursuant to his majesty's charter, and encouraged by his bounty of 1000*l.* per annum, for instructing, employing, and wholly maintaining the children, exclusive of the Dublin work-house school -	42	1935	——
Total of schools, &c.	1856	33476	10003

Sunday SCHOOLS are another species of charity schools lately instituted, and now pretty common in Great Britain. The institution is evidently of the first importance; and if properly encouraged must have a very favourable effect on the morals of the people, as it tends not only to preserve the children of the poor from spending Sunday in idleness, and of consequence in dissipation and vice, but enables them to lay in for the conduct and comfort of their future life a stock of useful knowledge and virtuous principles, which, if neglected in early life, will seldom be sought for or obtained amidst the hurry of business and the cares and temptations of the world.

The excellent founder of Sunday-schools was Mr Raikes, a gentleman of Gloucestershire, who, together with Mr Stock, a clergyman in the same county, and who, we believe, was equally instrumental in the business with Mr Raikes, showed the example, and convinced many of the utility of the plan. From Gloucestershire the institution was quickly adopted in every county and almost every town and parish of the kingdom; and we have only further to remark on a plan so generally known, so much approved, and so evidently proper, that we hope men of eminence and weight will always be found sufficiently numerous and willing to bestow their time and countenance in promoting it to the utmost of their power.

SCHOONER, in sea-language, a small vessel with two masts, whose main-sail and fore-sail are suspended from gaffs, reaching from the mast towards the stern, and stretched out below by booms, whose foremost ends are hooked to an iron, which clasps the mast so as to turn therein as upon an axis, when the after ends are swung from one side of the vessel to the other.

SCHORL, a species of mineral belonging to the siliceous genus. See MINERALOGY *Index*.

SCHOTIA, a genus of plants belonging to the decandria class; and in the natural method ranking under the 33d order, *Lomentaceæ*. See BOTANY *Index*.

SCHREBERA, a genus of plants belonging to the pentandria class. See BOTANY *Index*.

SCHREVELIUS, CORNELIUS, a laborious Dutch critic and writer, who has published some editions of the ancient classics more distinguished for their elegance than accuracy: his Greek Lexicon is esteemed the best of all his works. He died in 1667.

SCHULTENS, ALBERT, professor of Hebrew and of the eastern languages at Leyden, and one of the most learned men of the 18th century, was born at Groningen, where he studied till the year 1706, and from thence continued his studies at Leyden and Utrecht. Schultens at length applied himself to the study of Arabic books, both printed and in manuscript; in which he made great progress. A short time after, he became minister of Wassenar; and two years after, professor of the eastern tongues at Franeker. At length he was invited to Leyden, where he taught Hebrew and the eastern languages with extraordinary reputation till his death, which happened in 1750. He wrote many learned works; the principal of which are, 1. A Commentary on Job, 2 vols 4to. 2. A Commentary on the Proverbs. 3. *Vetus et regia via Hebraizandi.* 4. *Animadversiones philologicæ et criticæ ad varia loca Veteris Testamenti.* 6. An excellent Hebrew grammar, &c. Schultens discovered in all his works sound criticism and much learning. He maintained against Gousset and Driessen, that in order to have a perfect knowledge of Hebrew, it is necessary to join with it, not only the Chaldee and Syriac, but more particularly the Arabic.

SCHURMAN, ANNA MARIA, a most extraordinary German lady. Her natural genius discovered itself at six years of age, when she cut all sorts of figures in paper with her scissars without a pattern. At eight, she learned, in a few days, to draw flowers in a very agreeable manner. At ten, she took but three hours to learn embroidery. Afterwards she was taught music, vocal and instrumental; painting, sculpture, and engraving; in all of which she succeeded admirably. She excelled in miniature-painting, and in cutting portraits upon glass with a diamond. Hebrew, Greek, and Latin, were so familiar to her, that the most learned men were astonished at it. She spoke French, Italian, and English, fluently. Her handwriting, in almost all languages, was so inimitable, that the curious preserved specimens of it in their cabinets. But all this extent of learning and uncommon penetration could not protect her from falling into the errors of Labadie, the famous French enthusiast, who had been banished France for his extravagant tenets and conduct. To this man she entirely attached herself, and accompanied him wherever he went; and even attended him in his last illness at Altena in Holstein. Her works, consisting of *De vitæ humanæ termino*, and *Dissertatio de ingenii muliebris ad doctrinam et meliores literas aptitudine*; and her Letters to her learned correspondents, were printed at Leyden in 1648; but enlarged in the edition of Utrecht, 1662, in 12mo, under the following title: *A. M. Schurman Opuscula Hebræa, Græca, Latina, Gallica, Prosaica, et Metrica.* She published likewise at Altena, in Latin, A Defence of her attachment to Labadie, while she was with him in 1673; not worth reading. She was born at Cologne in 1607, but resided chiefly in Holland, and died in Friesland in 1678.

SCHWARTENBURG,

Schwartenburg || Schweitz.

SCHWARTENBURG, a town and castle of Germany, and circle of Upper Saxony, in the landgravate of Thuringia, and capital of a county of the same name belonging to a prince of the house of Saxony. It is seated on the river Schwartz, 20 miles south-east of Erford, and 35 north of Cullembach. E. Long. 11. 27. N. Lat. 50. 45.

SCHWARTS, Christopher, an eminent history-painter, born at Ingolstadt in 1550, who was distinguished by the appellation of the *German Raphael*. He learned the first principles of the art in his own country, but finished his studies at Venice; when he not only made the works of Titian his models, but had the advantage of receiving some personal instructions from that illustrious master. His performances were soon in the highest esteem, as his manner of painting was very different from what the Germans had been accustomed to before that time: he was, therefore, invited by the elector of Bavaria to his court, and appointed his principal painter. He died in 1594; and his most capital works, as well in fresco as in oil, are in the palace at Munich, and in the churches and convents.

SCHWARTZEMBERG, a town of Germany, in the circle of Franconia, and capital of a principality of the same name, in the kingdom of Bavaria. The castle is seated on the river Lec, 5 miles north-west of Nuremberg, and 20 east of Wertzburg. E. Long. 10. 27. N. Lat. 49. 43.

SCHWEIDNITZ, a strong town of Silesia, and capital of a province of the same name, with a castle. Next to Breslaw, it is the handsomest town of Silesia. The streets are large, the church fine, and the houses well built. The fortifications are not very considerable, and the royal palace is turned into a convent. Great part of the city was burnt down in 1716, but it was afterwards elegantly rebuilt and improved. In 1757, it fell into the hands of the Austrians, but was retaken by the Prussians the following year. All the magistrates are Roman Catholics; but most of the inhabitants are Protestants, who have a church without the town, as also a public school. It is seated on an eminence on the river Weistritz, 27 miles S. E. of Lignitz, and 22 S. W. of Breslaw. E. Long. 16. 54. N. Lat. 50. 46.

SCHWEINFURT, a very strong, and formerly a free, and imperial town of Franconia in Germany, with a magnificent palace, where the senators, who were 12 in number, met. The environs are rich in cattle, corn, and wine; the inhabitants are Protestants. They carry on an extensive trade in woollen and linen cloth, goose-quills, and feathers. It is seated on the river Maine, 27 miles north-east of Wurtzburg, and 25 west of Bamberg. E. Long. 10. 25. N. Lat. 50. 15. This town was taken by the French in 1796. It now belongs to Bavaria.

SCHWEITZ, a canton of Switzerland, bounded on the west by the lake of the Four Cantons; on the south by the canton of Uri; on the east by that of Glaris, and on the north by those of Zurich and Zug. This canton, in conjunction with those of Uri and Underwalden, threw off the Austrian yoke in 1308, and formed a perpetual alliance in 1315, which was the grand foundation of the Helvetic confederacy. The name of Schweitzerland, or Switzerland, which at first comprehended only those three cantons, was afterwards extended to all Helvetia. It derived that name, either from the canton of Schweitz, as being the most distinguished by the revolution of 1308, or because the Austrians called all the inhabitants of these mountainous parts by the general denomination of Schweitzers. The government of Schweitz and Uri was entirely democratical before the late revolution. They contain about 50,000 inhabitants, and could furnish more than 12,000 militia. The whole country being mountainous, consists chiefly of pasture, raises little corn, and has no wine; but the soil, though naturally barren, has been improved by the natives to a great degree of fertility. Luxury is scarcely known here; and a purity of morals prevails, which can scarcely be imagined by the inhabitants of extensive and opulent cities. The Roman Catholic is the established religion.

A dreadful disaster happened in this canton by the fall of part of a mountain called Ruffiberg or Rosenberg, on the evening of the 2d of September 1806. Three villages were entirely overwhelmed by it in less than five minutes, and two others were very much damaged. The torrent of earth and stones disengaged on this melancholy occasion was even more rapid than that of lava, and its terrible effects were equally irresistible, carrying rocks, trees, houses, every thing before it, and burying a space of charming country upwards of three miles square. So rapid was the motion of this dreadful mass, that it not only covered the adjoining valley, but ascended to a considerable height on the side of the opposite mountain. A portion of it rolled into the lake of Lauwertz, a fifth part of which it is supposed to have filled up. The agitation of the water was so great as to overturn a number of houses, chapels, mills, &c. along the southern shore of the lake, particularly the mill of Lauwertz, where 15 persons were killed, and buried in the ruins of the buildings, although it was about 60 feet above the level of the lake.

The villages of Goldau and Rothen, consisting of 115 houses, that of Busingen, of 126, and that of Huzlock, totally disappeared. Of Lauwertz there remain only ten buildings much damaged, and 25 were destroyed. Stein lost two houses and several stables, which latter were very numerous in all these villages. The total loss of property of different kinds, as houses, cows, horses, goats, sheep, &c. sustained on this occasion, has been estimated at 120,000*l.* sterling. In the villages which were overwhelmed, not an individual escaped. More than 1000 persons were the victims of this disaster. Thirteen travellers were on their way from Arth to Schweitz, of whom the foremost nine perished, and the remaining four escaped, being about 40 paces behind them.

About 20 years ago General Pfyffer foretold this catastrophe, from his particular knowledge of the mountain. There was a sea of water above Spietzflue, which for several years had undermined the rock, and, in a cavern of great depth beneath, the waters were ingulfed. The quantity of water which fell during the preceding years, tended to hasten the approach of this melancholy event, and the rains of some weeks before, decided the fate of this mountain.

Schweitz, a town of Switzerland, and capital of the canton of the same name, is seated near the Waldstætter sea

Schweitz || Sciagraphy.

sea, on the slope of a hill, and at the bottom of two high, sharp, and rugged rocks, called the Schweitzer Hahuem. The church is an edifice both large and magnificent. It is 10 miles south-east of Lucerne. E. Long. 8. 30. N. Lat. 46. 55.

SCHWENKFELDIA, a genus of plants belonging to the pentandria class; and in the natural method ranking with those that are doubtful. See BOTANY *Index*.

SCHWENKIA, a genus of plants belonging to the diandria class. See BOTANY *Index*.

SCHWINBURG, a town of Denmark, on the south coast of the island of Funen, opposite to the islands of Arroa and Langeland. E. Long. 10. 30. N. Lat. 55. 10.

SCIACCA, anciently called *Thermæ Selinuntiæ*, in Sicily, derives its present denomination from the Arabic word *Scheich*. It is a very ancient place, being mentioned in the account of the wars between the Greeks and Carthaginians, to the latter of whom it belonged. It is defended by ancient walls and the castle of Luna. It stands upon a very steep rock, hanging over the sea, and excavated in every direction into prodigious magazines, where the corn of the neighbouring territory is deposited for exportation; there is no harbour, but a small bay formed by a wooden pier, where lighters lie to load the corn which they carry out about a mile to ships at anchor.

The town is irregularly but substantially built, and contains 13,000 inhabitants, though Amico's *Lexicon Topographicum* says the last enumeration found only 9484. His accounts do not take in ecclesiastics, and several denominations of lay persons.

SCIÆNA, a genus of fishes belonging to the order thoracici. See ICHTHYOLOGY *Index*.

SCIAGRAPHY, or SCIOGRAPHY, the profile or vertical section of a building, used for showing the inside of it.

Sciagraphy. Science.

SCIAGRAPHY, in *Astronomy*, &c. is a term made use of by some authors for the art of finding the hour of the day or night, by the shadow of the sun, moon, stars, &c.

SCIATICA, the HIP-GOUT. See MEDICINE *Index*.

SCIENCE, in *Philosophy*, denotes any doctrines deduced from self-evident principles.

Sciences may be properly divided as follows: 1. The knowledge of things, their constitutions, properties, and operations: this, in a little more enlarged sense of the word, may be called φυσικη, or *natural philosophy*; the end of which is speculative truth. See PHILOSOPHY and PHYSICS.—2. The skill of rightly applying these powers, πρακτικη: The most considerable under this head is ethics, which is the seeking out those rules and measures of human actions that lead to happiness, and the means to practise them (see MORAL PHILOSOPHY); and the next is mechanics, or the application of the powers of natural agents to the uses of life (see MECHANICS.)—3. The doctrines of signs, σημειωτικε; the most usual of which being words, it is aptly enough termed *logic*. See LOGIC.

This, says Mr Locke, seems to be the most general, as well as natural, division of the objects of our understanding. For a man can employ his thoughts about nothing but either the contemplation of things themselves for the discovery of truth; or about the things in his own power, which are his actions, for the attainment of his own ends; or the signs the mind makes use of both in the one and the other, and the right ordering of them for its clearer information. All which three, viz. things as they are in themselves knowable, actions as they depend on us in order to happiness, and the right use of signs in order to knowledge, being *toto cœlo* different, they seem to be the three great provinces of the intellectual world, wholly separate and distinct one from another

SCIENCE, AMUSEMENTS OR RECREATIONS OF.

1 Nature and utility of scientific recreations.

A DESIRE of amusement and relaxation is natural to man. The mind is soon fatigued with contemplating the most sublime truths, or the most refined speculations, while these are addressed only to the understanding. In philosophy, as in polite literature, we must, to please and secure attention, sometimes address ourselves to the imagination or to the passions, and thus combine the *agreeable* with the *useful*. For want of this combination, we find that pure mathematics (comprehending *arithmetic*, *geometry*, *algebra*, *fluxions*, &c.), notwithstanding their great and acknowledged utility, are studied but by few; while the more attractive sciences of experimental philosophy and chemistry, are almost universally admired, and seldom fail to draw crowds of hearers or spectators to the lectures of their professors. The numerous striking phenomena which these latter sciences present to our senses, the splendid experiments by which their principles may be illustrated, and the continual application which they admit, of those principles and experiments to the affairs of common life, have a powerful influence on the imagination: fix and keep alive the attention; excite the passions of joy, terror or surprise; and gratify that love of the marvellous which nature has implanted in the human mind. Even the more abstruse subjects of pure mathematics, especially *arithmetic* and *geometry*, may be sometimes enlivened by amusing examples and contrivances; and are found the more pleasing, in proportion as they are susceptible of such elucidation.

These experimental contrivances, and useful applications to the purposes of common life, constitute what we may term the *Amusements or Recreations of* SCIENCE. They have very properly been denominated *rational recreations*, as they serve to relax and unbend the mind after long attention to the cares of business, or to severer studies, in a manner more rational, and often more satisfactory, than those frivolous pursuits which too often employ the time, and injure the health of the rising generation.

2 Object and plan of this article.

In the preceding volumes of this work we have supplied our readers with many examples of *scientific recreation*. Thus, the articles LEGERDEMAIN and PYROTECHNY may be regarded as entirely of this nature; and in the experimental parts of CHEMISTRY, ELECTRICITY, GALVANISM, and MAGNETISM; in the articles ACOUSTICS, HYDRODYNAMICS, MECHANICS, OPTICS, and its correlative divisions, CATOPTRICS, DIOPTRICS, PERSPECTIVE, and MICROSCOPE; in PNEUMATICS and AEROSTATION, we have related a variety of interesting experiments, and described many ingenious

Introduction.

ous contrivances, calculated both for instruction and amusement. It is the object of the present article to bring these under one point of view, and to add a few of the more curious or useful experiments and contrivances which could not before be conveniently introduced. In particular, we propose to explain some of those scientific deceptions which have excited so much interest and admiration, and to describe several useful philosophical instruments, which either are of very late invention, or have been overlooked in the preceding parts of the work. We shall thus be enabled to supply several deficiencies (otherwise unavoidable), and shall render the present article a sort of general index or table of reference to the various subjects of scientific amusement which are dispersed through the Encyclopædia.

For greater convenience, and more easy reference to preceding articles, we shall arrange the sections under which the various amusements of science may be reduced, in alphabetical order, according to the series of the principal mathematical and philosophical treatises. Thus the article will be divided into 13 sections, comprehending the recreations and contrivances that relate to *Acoustics*, *Arithmetic*, *Astronomy*, *Chemistry*, *Electricity*, *Galvanism*, *Geography*, *Geometry*, *Hydrodynamics*, *Magnetism*, *Mechanics*, *Optics* and *Pneumatics*.

It must not be supposed, from the title of this article, that the subjects which we are here to discuss are puerile or trifling. They will be such as are best calculated to excite the attention, quicken the ingenuity, and improve the memory of our young readers, and they will be similar to those pursuits which have employed the lighter hours of some of the most distinguished philosophers and mathematicians. The names of Bacon, of Boyle, of Newton, of Desaguliers, of Ozanam, of Montucla, and of Hutton, stamp a value on the recreations of science, and prevent us from considering them as frivolous or trifling.

3 Writers on scientific recreations.

The subject of scientific recreations must be regarded as entirely modern, as, previous to the era of Lord Bacon, philosophers were much more attached to rigid demonstration and metaphysical reasoning, than to experimental illustration. Much may be found on these subjects in the works of Lord Bacon and Mr Boyle; but the earliest collection of scientific amusements which deserves notice, is the work of Ozanam, entitled *Récréations Mathématiques et Physiques*, published in 1692, in 2 vols 8vo, and afterwards several times republished with improvements and additions, till it was enlarged to 4 vols 8vo. This work was soon translated into most of the modern languages, and was given to the English reader by Dr Hooper, under the title of *Rational Recreations*, first published, we believe, in 1774, and again in 1783, in 4 vols 8vo. The original work of Ozanam has been lately recomposed and greatly improved by M. Montucla, and a translation of this improved edition into English was published in 1803, in 4 vols 8vo, by Dr Charles Hutton. In this English edition, the work is much better adapted than in any former copy, to the English reader, and is enriched by some of the latest improvements in natural philosophy and chemistry.

4 Popular works on experimental philosophy.

It may not be improper to add, to this notice of works on the amusements of science, a list of the best popular treatises on natural and experimental philosophy and chemistry, to which our younger readers may have recourse for an explanation of the principles of these sciences, if they should find some of the articles in this Encyclopædia too abstruse or too mathematical.

Recreations in Acoustics.

To young people who have never read any work on these sciences, we may recommend Mr Joyce's *Scientific Dialogues*, *Dialogues on Chemistry*, and *Dialogues on the Microscope*, and Mr Frend's *Evening Amusements*. After attentively perusing these, they may enlarge their information by reading Brewster's edition of *Ferguson's Lectures*; Nicholson's *Introduction to Natural Philosophy*; Gregory's *Economy of Nature*; or Dr Young's *Lectures on Natural Philosophy*; and Henry's *Epitome of Chemistry*, 8vo edition.

Sect. I. *Recreations and Contrivances relating to Acoustics.*

5 Recreations in Acoustics.

In the article Acoustics, Vol. I. p. 159. we have related six amusing experiments and contrivances, and explained them on the principles of acoustics. These are, the *conversing statue*, explained on the principle of the reflexion of sound; the *communicative busts*, and the *oracular head*, explained from the reverberation of sound; the *solar sonata*, the *automaton harpsichord*, and the *ventose symphony*, explained partly on the principles of acoustics, and partly on those of mechanics. We have now to explain a deception connected with the conveyance of sound, well known to many of our readers, by the name of the *invisible lady* or *invisible girl*; and to notice some curious figures assumed by sand or other light bodies on the surface of vibrating plates.

6 Invisible lady.

Some years ago M. Charles, brother to the well-known philosopher of that name, exhibited in London, and afterwards in most of the large towns of Great Britain and Ireland, the experiment of the *invisible girl*. The apparatus by means of which this experiment was conducted, and the principal circumstances attending the exhibition, have been described by Mr Nicholson, in his Philosophical Journal, from which the following account is principally taken.

In the middle of a large lofty room, in an old house, where, from the appearance of the wainscot, and other circumstances, there seemed to be no situation for placing acoustic tubes or reflectors, was fixed a wooden railing, about 5 feet high, and as many wide, inclosing a square space. A perspective view of the apparatus is given at fig. 1. of Plate CCCCLXX, where A, A, A, A, represent the four upright posts. These posts were united by a cross rail near the top, BB, and by two or more similar rails at the bottom. The frame, thus constructed, stood upon the floor, and from the top of each of the four upright pillars proceeded a strong bended brass wire *a*, *a*, *a*, *a*, so that they all met together at the top *c*, where they were secured by a crown and prince's feather, or other ornaments. From these four wires was suspended a hollow copper ball, about a foot in diameter, by means of slight ribbons, so as to cut off all possible communication with the frame. Round this ball were placed four trumpets, at right angles to each other, as represented at A, A, A, A, fig. 2. having their mouths opening externally.

Such was the apparent construction of the apparatus, and it was pretended that there resided within the ball an invisible lady, capable of giving answers to any questions that were put to her. When a question was proposed,

posed, it was uttered in at the mouth of one of the trumpets, and an answer immediately proceeded from all the trumpets, so distinctly loud as to be heard by an ear applied to any of them, and yet so distant and feeble, that it appeared to come from a very diminutive being. In this consisted the whole of the experiment, except that the lady could converse in several languages, sing, describe all that happened in the room, and display a fund of lively wit and accomplishment that admirably qualified her to support the character she had undertaken.

The principles on which this experiment is constructed are similar to those of the *oracular head* described under Acoustics; except that in the present deception, an artificial echo is produced by means of the trumpets, and thus the sound is completely reversed, instead of proceeding in its original direction. Fig. 3. represents a section of the aparatus, and will explain the method by which the deception is effected. One of the posts A, A, as well as one-half of the hand-rail connected with it, is hollowed into a tube, the end of which opens on the inside of the rail, opposite the centre of the trumpet on that side, though the hole is very small, and is concealed by reeds or other mouldings. At the other end the tube communicates with a long tin pipe *pp* about half an inch in diameter, concealed below the floor of the room *ff*, and passing up the wall to a large deal case, *k*, almost similar to an inverted funnel, and large enough to contain the confederate, and a piano forte, on which tunes may be occasionally played. A small hole closed with glass is left through the funnel and side-wall of the room, as at *h*, so that the confederate may have an opportunity of observing and commenting on any circumstances which may take place in the room. Thus, when any question is asked at one of the trumpets, the sound is conveyed through the communicating tubes into the funnel-shaped case, so as to be heard by the confederate, who then gives the answer, which in like manner is conveyed through the tube below the floor to one of the trumpets, and is heard, either from that, or any of the rest. Fig. 3.

On the Figures produced by Light Bodies on Vibrating Surfaces.

7 Vibration figures.

About the year 1787, Dr Chladni of Wittemberg drew the particular attention of philosophers to the nature of vibration, by investigating the curves produced by the moving points of vibrating surfaces. It is found that if sand, or a similar substance, be strewed on the surface of an elastic plate, such as glass or the sonorous metals, and if the plate be made to vibrate, the sand will arrange itself on particular parts of the surface, showing that these points are not in motion. These figures are often extremely curious, and may be varied according to the pleasure or address of the experimentalist. Some of the more remarkable are represented at figs. 5, 6, 10, 11. Fig. 5, 6, 10, 11.

To produce these figures, nothing is necessary but to know the method of bringing that part of the surface which we wish not to vibrate into a state of rest; and of putting in motion that which we wish to vibrate: on this depends the whole expertness of producing what are called *vibration figures*.

Those who have never tried these experiments may imagine that to produce fig. 5. it would be necessary to damp, in particular, every point of the part to be kept at rest, viz. the two concentric circles and the diameter, and to put in motion every part intended to vibrate. Fig. 5. This, however, is not the case; for we need damp only the points *a* and *b*, and cause to vibrate one part *c*, at the edge of the plate; for the motion is soon communicated to the other parts which we wish to vibrate, and the required figure will in this manner be produced.

The damping may be best effected by laying hold of the place to be damped between the fingers, or by supporting it with only one finger. This will be more clearly comprehended by turning to fig. 8, where the hand is represented in the position necessary to hold the plate. Fig. 8. In order to produce fig. 6. we must hold the plate horizontally, placing the thumb above at *a*, with the second finger directly below it; and besides this, we must support the point *b* on the under side of the plate. If the bow of a violin be then rubbed against the plate at *c*, there will be produced on the glass the figure which is delineated at fig. 6. Fig. 6. When the point to be supported or damped lies too near the centre of the plate, we may rest it on a cork, not too broad at the end, brought into contact with the glass in such a manner as to supply the place of the finger. It is convenient also, when we wish to damp several points at the circumference of the glass, to place the thumb on the cork, and to use the rest of the fingers for touching the part which we wish to keep at rest. For example, if we wish to produce fig. 7. on an elliptic plate, the larger axis of which is to the less as 4 to 3, we must place the cork under *c*, the centre of the plate; put the thumb on this point, and then damp the two points of the edge *p* and *q*, as may be seen at fig. 8, and make the plate to vibrate by rubbing the violin bow against it at *r*. There is still another convenient method of damping several points at the edge when large plates are employed. Fig. 4. represents a strong square piece of metal *a b*, a line in circumference, which is screwed to the edge of the table, or made fast in any other manner; and a notch, about as broad as the edge of the plate, is cut into one side of it by a file. We then hold the plate resting against this piece of metal, by two or more fingers when requisite, as at *c* and *d*, by which means the edge of the plate will be damped in three points *d*, *c*, *e*; and in this manner, by putting the plate in vibration at *f*, we can produce fig. 13. In cases of necessity, the edge of a table may be used, instead of the piece of metal; but it will not answer the purpose so well. Fig. 7. Fig. 4. Fig. 13.

To produce the vibration at any required place, a common violin bow, rubbed with rosin, is the most proper instrument to be employed. The hair must not be too slack, because it is sometimes necessary to press pretty hard on the plate, in order to produce the tone sooner.

When we wish to produce any particular figure, we must first form it in idea upon the plate, in order that we may be able to determine where a line at rest, and where a vibrating part, will occur. The greatest rest will always be where two or more lines intersect each other, and such places must in particular be damped. For example, in fig. 9. we must damp the part *n*, and stroke with the bow in *p*. Fig. 13. may be produced with no less ease, if we hold the plate at *r*, and stroke with the Fig. 13.

Recreations in Acoustics.

bow at *f*. The strongest vibration seems always to be in that part of the edge which is bounded by a curve; for example, in figs. 10. and 11. at *n*. To produce these figures, therefore, we must rub with the bow at *n*, and not at *r*.

Fig. 10, 11.

We must, however, damp not only those points where two lines intersect each other, but endeavour to support at least one which is suited to that figure, and to no other. For example, when we support *a* and *b*, fig. 5, and rub with the bow at *c*, fig. 9. also may be produced, because both figures have these two points at rest. To produce fig. 5. we must support with one finger the part *e*, and rub with the bow in *c*; but fig. 9. cannot be produced in this manner, because it has not the point *e* at rest.

Fig. 5.

One of the greatest difficulties in producing the figures, is to determine before-hand the vibrating and resting points which belong to a certain figure, and to no other. Hence, when we are not able to damp those points which distinguish one figure from another, if the violin bow be rubbed against the plate, several hollow tones are heard, without the sand forming itself as expected. We must therefore acquire by experience a readiness, in being able to search out among these tones, that which belongs to the required figure, and to produce it on the plate by rubbing the bow against it. When we have acquired sufficient expertness in this respect, we can determine before-hand, with tolerable certainty, the figures to be produced, and even the most difficult. It may be easily conceived, that we must remember what part of the plate, and in what manner we damped; and we may mark these points by scratching the plate with a piece of flint.

When the plate has acquired the proper vibration, endeavour to keep it in that state for some seconds; which can be done by rubbing the bow against it several times. By these means the sand will be more accurately formed.

Any sort of glass may be employed, provided its surface be smooth, otherwise the sand will fall into the hollow parts, or be thrown about irregularly. Common glass plates, when cut with a stone, are very sharp on the edge, and would soon destroy the hair of a violin bow; for which reason the edge must be smoothed by a file, or a piece of freestone.

We must endeavour to procure such plates as are uniformly thick, and of different sizes; such as circular ones from four to 12 inches in diameter. Sand too fine must not be employed. The plate must be equally bestrewed with it, and not too thickly, as the lines will then be exceedingly fine, and the figures will acquire a better defined appearance. *

* *Phil. Mag.* vol. iii. p. 389.

8 Ventriloquism.

The subject of ventriloquism, or that peculiar modification of voice by which sounds are made to appear as coming from situations at a distance from the person who utters them, is a deception connected with the subject of acoustics. This deception we have already explained under PHYSIOLOGY, N° 251, 254.

SECT. II. *Recreations and Contrivances relating to ARITHMETIC.*

Arithmetical Recreations.

9 Arithmetical recreations.

THE only amusements connected with this subject, of which we have already given an account, are those contained under the head of *Miscellaneous Performances* in the 4th section of the article LEGERDEMAIN, the most curious of which is the method of discovering, by calculation, what person in a select party has put a ring on his finger, as well as the *hand*, the *finger*, and the *joint* on which the ring is placed. We have also described the magic squares, and magic circles, in vol. xvi. p. 354, *et seq.* A mechanical method of performing the principal arithmetical operations has been described under ABACUS.

To perform a question in Simple Addition merely by knowing the first line.

10 Addition performed from a single line.

The question proposed may consist of five lines of figures, of which the first and second lines are written by the proposer, the third by the person to whom the question is proposed, and the fourth and fifth alternately by the proposer and expounder; but before the second line is written, the expounder is to discover the sum in the following manner. To each digit of the first line he adds 2, which gives as many digits of the sum as are contained in the first line of the question, and to these, 2 is to be prefixed on the left hand. To accommodate the question to this sum, when the proposer has written the second line, the expounder constructs the third by deducting each digit of this line from 10, so that his third line consists of the remainders. In like manner the expounder constructs the fifth line by remainders from the digits of the fourth line set down by the proposer, deducting the first digit on the right hand from 12, and the rest from 10. The following example will illustrate the method of procedure.

Suppose it be required to find the sum in a question of which the first line is 35726. Adding 2 to each of these digits, and prefixing 2 to the sum, we have for the sum of the whole question 257948. Let us now suppose that the second line written by the proposer is 21354. To construct the third line, the expounder subtracts 2, 1, 3, 5, 4 each from 10; and the remainders 8, 9, 7, 5, 6, form the third line. Lastly, Suppose that the proposer's next line, forming the fourth, stands thus, 1, 3, 2, 4, 8. To find the last line, the expounder deducts 1, 3, 2, 4, each from 10, and 8 from 12, by which he obtains 9, 7, 8, 6, 4; and it is evident that the addition of these five lines produces the sum originally set down from the first line only.

35726
21354
89756
13248
97864
257948

N. B. It is essential to the performance of this question, that none of the digits written by the proposer be ciphers (A.)

Most

(A) Though it is not our intention in the present article, to explain all the experiments and contrivances so fully as to leave nothing to the ingenuity of the reader, we may remark, with respect to the present question, that as the obtained sum is derived merely from the first line of figures, all below this must be so contrived as to produce by their addition a line in which all the digits are 2's. Accordingly, it will be found that the addition of the first

Most of our readers are well acquainted with the question in multiplication respecting the price of a horse from successively doubling a farthing as often as there are nails in the horse's shoes. (See Montucla's *Recreations* by Hutton, vol. i. or *Sandford and Merton*, vol. i.) The following question is of a similar nature, but appears still more surprising.

11 *A courtier having performed some very important service to his sovereign, the latter wishing to confer on him a suitable reward, desired him to ask whatever he thought proper, promising that it should be granted. The courtier, who was well acquainted with the science of numbers, requested only that the monarch would give him a quantity of wheat equal to that which would arise from one grain doubled 63 times successively. What was the value of the reward?*

The origin of this problem is related in so curious a manner by Al-Sephadi, an Arabian author, that it deserves to be mentioned. A mathematician named Sessa, says he, the son of Daher, the subject of an Indian prince, having invented the game of chess, his sovereign was highly pleased with the invention, and wishing to confer on him some reward worthy of his magnificence, desired him to ask whatever he thought proper, assuring him that it should be granted. The mathematician, however, asked only a grain of wheat for the first square of the chess-board, two for the second, four for the third, and so on to the last or 64th. The prince at first was almost incensed at this demand, conceiving that it was ill suited to his liberality, and ordered his vizir to comply with Sessa's request; but the minister was much astonished when, having caused the quantity of corn necessary to fulfil the prince's order to be calculated, he found that all the grain in the royal granaries, and that even of all his subjects, and in all Asia, would not be sufficient. He therefore informed the prince, who sent for the mathematician, who candidly acknowledged his inability to comply with his demand, the ingenuity of which astonished him still more than the game which he had invented.

To find the amount of this prodigious reward, to pay which even the treasury of a mighty prince was insufficient, we shall proceed most easily by way of geometrical progression, though it might be discovered by common multiplication and addition. It will be found by calculation, that the 64th term of the double progression, beginning with unity, is 9,223,372,036,854,775,808. But the sum of all the terms of a double progression, beginning with unity, may be obtained by doubling the last term and subtracting from it unity. The number, therefore, of the grains of wheat equal to Sessa's demand, will be 18,446,744,073,709,551,615. Now, if a standard English pint contain 9216 grains of wheat, a gallon will contain 73,728; and, as eight gallons make one bushel, if we divide the above result by 8 times 73,728, we shall have 31,274,997,412,295 for the number of the bushels of wheat necessary to discharge the promise of the Indian king: and if we suppose that one acre of land be capable of producing in one year, 30 bushels of wheat, to produce this quantity would require 1,042,499,913,743 acres, which make more than 8 times the surface of the globe; for the diameter of the earth being supposed equal to 7930 miles, its whole surface, comprehending land and water, will amount to very little more than 126,437,889,177 square acres.

If the price of a bushel of wheat be estimated at 10s. (it is at present, August 1809, 12s. 6d. per bushel), the value of the above quantity will amount to 15,637,498,706,147*l.* 10s.; a sum which, in all probability, far surpasses all the riches on the earth. *

* *Hutton's Recreations*, vol. i.

To discover any Number thought of.

12 To tell a number thought of.

Of this problem there are several cases, differing chiefly in complexity of operation.

I. Desire the person who has thought of a number, to triple it, and to take the exact half of that triple if it be even, or the greater half if it be odd. Then desire him to triple that half, and ask him how many times that product contains 9; for the number thought of will contain double the number of nines, and one more if it be odd.

Thus, if 4 has been the number thought of, its triple will be 12, which can be divided by 2 without a remainder. The half of 12 is 6, and if this be multiplied by 3, we shall have 18, which contains 9 twice, the number will therefore be 4 equal twice 2, the number of nines in the last product.

II. Bid the person multiply the number thought of by itself; then desire him to add unity to the number thought of, and to multiply that sum also by itself; in the last place, ask him to tell the difference of those two products, which will certainly be an odd number, and the least half of it will be the number required.

Let the number thought of be 10, which multiplied by itself gives 100; in the next place 10 increased by 1 is 11, which multiplied by itself makes 121, and the difference of these two squares is 21, the least half of which being 10, is the number thought of.

This operation might be varied in the second step by desiring the person to multiply the number by itself, after it has been diminished by unity, and then to tell the difference of the two squares, the greater half of which will be the number thought of.

Thus, in the preceding example, the square of the number thought of is 100, and that of the same number, subtracting 1, is 81; the difference of these is 19, the greater half of which, or 10, is the number thought of.

III. Desire the person to add to the number thought of its exact half if it be even, or its greater half if it be odd, in order to obtain a first sum; then bid him add to this sum its exact half, or its greater half, according as

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first right-hand column produces 22, and that of all the rest 20, which, with the addition of the 2 carried, supplies the other 2's in the line. From this it is evident, that though, for more easy illustration, we have given a question containing only five lines; seven, nine, or any unequal number may be employed, constructing the seventh, ninth, &c. on similar principles.

as it is even or odd, to have a second sum, from which the person must subtract the double of the number thought of. Then desire him to take the half of the remainder, or its less half if it be an odd number, and continue halving the half till he comes to unity. When this is done, count how many subdivisions have been made, and for the first division retain two, for the second 4, for the third 8, and so of the rest, in double proportion. It is here necessary to observe, that 1 must be added for each time that the least half was taken, because, by taking the least half, one always remains; and that 1 only must be retained when no subdivision could be made; for thus you will have the number the halves of the halves of which have been taken; the quadruple of that number then will be the number thought of, in case it was not necessary at the beginning to take the greater half, which will happen only when the number thought of is evenly even, or divisible by 4; but if the greater half has been taken at the first division, 3 must be subtracted from the above quadruple, or only 2 if the greater half has been taken at the second division, or 5 if it has been taken at each of the two divisions, and the remainder then will be the number thought of.

Thus, if the number thought of has been 4; by adding to it its half, we shall have 6; and if to this we add its half, 3, we shall have 9; if 8, the double of the number thought of, be subtracted, there will remain 1, which cannot be halved, because we have arrived at unity. For this reason, we must retain 1; and the quadruple of this, or 4, will be the number thought of.

IV. Desire the person to take 1 from the number thought of, and to double the remainder; then bid him take 1 from this double, and add to it the number thought of. Having asked the number arising from this addition, add 3 to it, and the third of the sum will be the number required.

Let the number thought of be 5; if 1 be taken from it, there will remain 4, the double of which 8, being diminished by 1, and the remainder 7 being increased by 5, the number thought of, the result will be 12; if to this we add 3, we shall have 15, the third part of which, 5, will be the number required.

V. Desire the person to add 1 to the triple of the number thought of, and to multiply the sum by 3; then bid him add to this product the number thought of, and the result will be a sum, from which if 3 be subtracted, the remainder will be double of the number required. If 3 therefore be taken from the last sum, and if the cipher on the right be cut off from the remainder, the other figure will indicate the number sought.

Let the number thought of be 6, the triple of which is 18, and if unity be added it makes 19; the triple of this last number is 57, and if 6 be added it makes 63, from which if 3 be subtracted the remainder will be 60; now, if the cipher on the right be cut off, the remaining figure 6 will be the number required.

VI. Among the various methods contrived for discovering numbers thought of, we have seen none more ingenious than the following, which was lately communicated to us. This is a sort of puzzle, consisting of six slips of paper or pasteboard, on which are written numbers as expressed in the following columns.

A	B	C	D	E	F
1	2	4	8	16	32
3	3	5	9	17	33
5	6	6	10	18	34
7	7	7	11	19	35
9	10	12	12	20	36
11	11	13	13	21	37
13	14	14	14	22	38
15	15	15	15	23	39
17	18	20	24	24	40
19	19	21	25	25	41
21	22	22	26	26	42
23	23	23	27	27	43
25	26	28	28	28	44
27	27	29	29	29	45
29	30	30	30	30	46
31	31	31	31	31	47
33	34	36	40	48	48
35	35	37	41	49	49
37	38	38	42	50	50
39	39	39	43	51	51
41	42	44	44	52	52
43	43	45	45	53	53
45	46	46	46	54	54
47	47	47	47	55	55
49	50	52	56	56	56
51	51	53	57	57	57
53	54	54	58	58	58
55	55	55	59	59	59
57	58	60	60	60	60
59	59	61	61	61	61
61	62	62	62	62	62
63	63	63	63	63	63

The six slips being thus prepared, a person is to think of any one of the numbers which they contain, and to give to the expounder of the question those slips which contain the number thought of. To discover this number, the expounder has nothing to do but to add together the numbers at the top of the columns put into his hand. Their sum will express the number thought of.

Example. Thus, suppose we think of the number 14. We find that this number is in three of the slips, viz. those marked B, C, and D, which are therefore given to the expounder, who on adding together 2, 4, and 8, obtains 14, the number thought of.

This trick may be varied in the following manner. Instead of giving to the expounder the slips containing the number thought of, these may be kept back, and those in which the number does not occur be given. In this case the expounder must add together, as before, the numbers at the top of the columns, and subtract their sum from 63; the remainder will be the number thought of.

Example. Taking again the former number 14, the slips in which this is not contained are those marked A, E, and F. Adding together 1, 16, and 32, the expounder has 49, which subtracted from 63, leaves 14, the number thought of as before.

The slips containing the columns of numbers are usually

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usually marked with letters on the back, and not above the columns, as we have expressed them. This renders the deception more complete, as the expounder of the question, knowing before-hand the number at the top of each column, has only to examine the letters at the back of the slips given him, when he performs the problem without looking at the numbers, and thus renders the trick more extraordinary.

Towards explaining the principles on which this puzzle has been constructed, we may remark, 1. That each column may be divided into sets of figures; those of each column consisting of as many figures as are represented by the number at the head of the column, one figure in each set in the column marked 1; two in that marked 2; four in four, &c. 2. That after each parcel there is a blank of as many figures as that parcel consists of, counting in a regular series from the last number of the parcel. 3. That the numbers of each parcel are in *arithmetical* progression, while those at the head of the columns are in *geometrical* progression. 4. That the first sets of all the columns taken together in regular series, compose the whole series of numbers in the columns from 1 to 63, and are consequently the most important, as any number thought of must be found in only one of these sets. 5. That the sum of all the terms of the geometrical progression is equal to the last or highest term of the arithmetical progression 63, and is also equal to the double of the last term of the geometrical progression diminished by unity.

Having premised these remarks, we shall not proceed farther than to hint, that, in constructing this ingenious puzzle, the author appears to have employed the properties of *geometrical progressions*, and their relations to *arithmetical progressions*, for which see the article SERIES.

To render these columns more portable, they may each be divided into three or more, and written on small cards, marked at the back with letters. In this form the first figure of the first column must be employed, like the first figure at the head of the slips; or the better to disguise the contrivance, the figures of each column may be placed in a confused order, and the letters alone employed.

13 Frend's tangible arithmetic.

Mr William Frend, well known as the author of the *Evening Amusements*, has rendered an important service to the rising generation, by the publication of his *Tangible Arithmetic*, or the Art of Numbering made easy, by means of an arithmetical toy. The toy which forms the basis of this method of numbering, is similar to what has been called the Chinese board, which is explained in the fourth volume of Mr Frend's *Evening Amusements*. This toy is so constructed as to be capable of expressing any number as far as 16,666,665, and is capable of performing a great variety of arithmetical operations, merely by moving a few balls. The author gives a variety of simple instances and amusing games, by which the first four rules of arithmetic may be explained and illustrated. The whole contrivance is very ingenious, and well deserves the attention of mothers and all teachers of children.

14 Astronomical Recreations.

SECT. III. *Recreations and Contrivances relating to ASTRONOMY.*

MANY scientific recreations may be derived from astronomy, and some of these have already been noticed in our treatise on that subject. Among the most useful of the astronomical amusements, however, is the method of discovering the several stars that compose the constellations; and this we shall here explain.

15 Method of learning the constellations.

Before we can become acquainted with the stars that compose the constellations, we must be provided with accurate celestial charts, or a good planisphere, of such a size that stars of the first and second magnitudes can be readily distinguished on it. Having placed before us one of these charts, as that containing the north pole, or that part of the planisphere which contains the northern hemisphere, first find out the *Great Bear*, commonly called *Charles's wain* (Plate CCCCLXXI. fig. 14.). It may be easily known, as it forms one of the most remarkable groupes in the heavens, consisting of several stars of the second magnitude, four of which are arranged in such a manner as to represent an irregular square, and the other three a prolongation in the form of a very obtuse scalene triangle. Besides, by examining the figure of these seven stars, as exhibited in the chart, we shall easily distinguish those in the heavens which correspond to them. When we have made ourselves acquainted with these seven principal stars, we examine on the chart the configuration of the neighbouring stars, which belong to the *Great Bear*; and thence learn to distinguish the other less considerable stars which compose that constellation. Fig. 14.

After knowing the *Great Bear*, we may easily proceed to the *Lesser Bear*; for nothing will be necessary but to draw, as may be seen in fig. 15. a straight line through the two anterior stars of the square of the Great Bear, or the two farthest distant from the tail; this line will pass very near the polar star, a star of the second magnitude, and the only one of that size in a pretty large space. At a little distance from it, there are two other stars of the second and third magnitudes, which, with four more of a less size, form a figure somewhat similar to that of the *Great Bear*, but smaller. This is what is called the *Lesser Bear*; and we may learn, in the same manner as before, to distinguish the stars which compose it. Fig. 15.

Now if a straight line be drawn through those stars of the *Great Bear*, nearest to the tail, and through the polar star, it will conduct us to a very remarkable group of five stars arranged nearly in this form M (see fig. 16.). These are the constellation of *Cassiopeia*, in which a very brilliant new star appeared in 1572; though soon after it became fainter, and at length disappeared. Fig. 16.

If a line, perpendicular to the above line, be next drawn through this constellation, it will conduct, on the one side, to a very beautiful star called *Algenib*, which is in the back of *Perseus*; and in the other, to the constellation of the *Swan* (fig. 17.), remarkable by a star of the first magnitude. Near *Perseus* is the brilliant star of the *Goat*, called *Capella*, which is of the first magnitude, and forms part of the constellation of *Auriga*. Fig. 17.

After this, if a straight line be drawn through the last two stars of the tail of the *Great Bear*, we shall come to the neighbourhood of *Arcturus*, one of the most brilliant stars in the heavens, which forms part of the constellation of *Bootes* (fig. 18.)

In this manner we may successively employ the knowledge which we have obtained of the stars of one constellation, to enable us to find out the neighbouring

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ones. We shall not enlarge further on this method; for it may be easily conceived, that we cannot proceed in this manner through the whole heavens; but any person of ingenuity may thus in the course of a few nights, learn to know a great part of the heavens, or at any rate the principal stars and constellations.

16 Brewster's astrometer.

In the article ASTRONOMY we have described the usual instruments for ascertaining the situation, distances, &c. of the heavenly bodies. We must here add an account of an ingenious instrument for finding the rising and setting of the stars and planets, and their position in the heavens. This instrument is called an *astrometer*, and was originally invented by M. Jurat. An improved astrometer has been lately contrived by Dr David Brewster, and is thus described by him in Nicholson's Journal for May 1807, vol. xvi.

"This astrometer, represented in Plate CCCCLXXI. fig. 19. consists of four divided circumferences. The innermost of these is moveable round the centre A, and is divided into 24 hours, which are again subdivided into quarters and minutes, when the circle is sufficiently large. The second circumference is composed of four quadrants of declination, divided by means of a table of semidiurnal arcs, adapted to the latitude of the place. In order to divide these quadrants, move the horary circle, so that 12 o'clock noon may be exactly opposite to the index B: then since the star is in the equator, and its declination 0, when the semidiurnal arc is VI hours, the zero of the scales of declination will be opposite VI. VI.; and as the declination of a star is equal to the colatitude of the place, when its semidiurnal arc is 0, or when it just comes to the south point of the horizon, without rising above it, the degree of declination at the other extremity of the quadrant, or opposite XII. XII., will be the same as the colatitude of the place, which in the present case is 39°, the latitude of the place being supposed 51° north. The intermediate degrees of declination are then to be laid down from a table of semidiurnal arcs, by placing the degree of declination opposite to the arc to which it corresponds; thus the 10° of south declination must stand opposite V^h 13′ in the afternoon, and VI^h 47′ in the morning, because a declination of 10° south gives a semidiurnal arc of V^h 13′. When the scales of declination are thus completed, the instrument is ready for showing the rising and setting of the stars. For this purpose move the horary circle till the index B points to the time of the star's southing; thus, opposite to the star's declination to the scale C, if the declination is south, or in the scale D if it is north, will be found the time of its rising above the horizon; and the degree of declination on the scales E and F, according as it is south or north, will point out on the horary circle the time of the star setting. If the rising of the star is known from observation, bring its declination to the time of its rising on the circle of hours, and the index B will point out the time at which it passed the meridian; and its declination on the opposite scale will indicate the time when it descends below the horizon. In the same way, from the time of the star setting, we may determine the time when it rises and comes to the meridian

"The two exterior circles are added to the astrometer, for the purpose of finding the position of the stars and planets in the heavens. The outermost of these is divided into 360 equal parts; and the other, which is a scale of amplitudes, is so formed, that the amplitude of any of the heavenly bodies may be exactly opposite the corresponding degree of declination in the adjacent circle. The degree of south declination, for instance, in the latitude of 51°, corresponds with an amplitude of 15° 20′, consequently the 15° of amplitude must be nearly opposite to the tenth degree of declination; so that by a table of amplitudes the other points of the scale may be easily determined. The astrometer is also furnished with a moveable index MN, which carries at its extremities two vertical sights *m n*, in a straight line with the centre A. The instrument being thus completed, let it be required to find the planet Saturn, when his declination is 15° north, and the time of his southing 3^h 30′ in the morning. The times of his rising and setting will be found to be 7^h 15′, and 10^h 45′, and his amplitude 24° north. Then shift the moveable index till the side of it which points to the centre is exactly above 24° of the exterior circle in the north-east quadrant, and when the line AB is placed in the meridian, the two sight holes will be directed to the point of the horizon where Saturn will be seen at 7^h 15′, the time of his rising. The same being done in the north-west quadrant, the point of the horizon where the planet sets will likewise be determined. In the same way the position of the fixed stars, and the other planets, may be easily discovered.

"If it is required to find the name of any particular star that is observed in the heavens, place the astrometer due north and south, and when the star is near the horizon, either at its rising or setting, shift the moveable index till the two sights point to the star. The sight of the index will then point out, on the exterior circle, the star's amplitude. With this amplitude enter the third scale from the centre, and find the declination of the star in the second circle. Shift the moveable horary circle till the time at which the observation is made be opposite to the star's declination, and the index B will point to the time at which it passes the meridian. The difference between the time of the star's southing, and 12 o'clock noon, converted into degrees of the equator, and added to the right ascension of the sun if the star comes to the meridian after the sun, but subtracted from it if the star souths before the sun, will give the right ascension of the star. With the right ascension and declination thus found, enter a table of the right ascensions and declinations of the principal fixed stars, and you will discover the name of the star which corresponds with these numbers. The meridian altitudes of the heavenly bodies may always be found by counting the number of degrees between their declination and the index B. The astrometer may be employed in the solution of various other problems; but the application of it to other purposes is left to the ingenuity of the young astronomer."

SECT. IV. *Recreations and Contrivances relating to CHEMISTRY.*

17 Chemical Recreations.

The experiments which illustrate the principles of Chemistry, afford abundant examples of scientific recreations. We cannot here enter on this extensive field, as we have already illustrated the subject very fully under the article CHEMISTRY. In the present section, therefore, we shall do little more than enumerate some of the most striking experiments, referring our readers for

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for a description and explanation of them, to the above article, and to the principal elementary works on modern chemistry, especially the *Epitome of Chemistry*, by Dr William Henry (8vo edition), to which the following enumeration will chiefly refer.

Among the more curious and interesting experiments of chemistry, we may notice the combustion produced by wrapping *nitrate of copper*, slightly moistened, in a sheet of *tin foil* (Henry, p. 15.); the reflection of heat and cold from the surface of concave mirrors (CHEMISTRY, N° 170, or Henry, p. 28.); the artificial production of great degrees of cold, so as to freeze *mercury* and *alcohol* (CHEMISTRY, 274, or Henry, p. 36.); the experiments of Dr Herschel, shewing that the sun emits rays which *heat* without *illuminating;* others which *illuminate* without *heating;* and others which neither *illuminate* nor *heat*, but produce evident *chemical changes* (CHEMISTRY, 172, or Henry, p. 48.); the *combustion of charcoal, phosphorus*, and *iron wires*, in *oxygenous gas*, and more especially the combustion of metals in a combined stream of *oxygen* and *hydrogen* gases (Henry, p. 60.); the *explosion* of *hydrogenous* and *oxygenous* gases, and consequent production of water (CHEMISTRY, 382, and Henry, p. 70.); the *decomposition of water* (CHEMISTRY, 384, or Henry, p. 78.); the effect of *alkalies* and *acids* in changing the colour of *blue* vegetable infusions to *green* and *red* (Henry, p. 102.); the combustion produced by mixing *nitric acid* with *essential oils*, or other combustibles (CHEMISTRY, 510, and Henry, p. 151.); the combustion produced by throwing *metallic particles* into *oxygenized muriatic acid gas* (Henry, p. 181.); the deflagration of *hyperoxygenized muriate of potash*, with *phosphorus* and other combustibles (CHEMISTRY, 962, et seq. or Henry, p. 187.); the production of *phosphorated hydrogen gas*, by throwing *phosphuret of lime* into water, (Henry, p. 197.); and the decomposition of metallic solutions, so as to procure the metals in a pure or metallic state.

As these last experiments are only incidentally noticed in the article CHEMISTRY, and in Dr Henry's *Epitome*, we shall here describe two of the most curious instances of what have been called *metallic vegetations*.

18 Arbor Dianæ.

The first of these which we shall notice is called *Arbor Dianæ*, the tree of Diana, or the silver tree, as it is produced by decomposing a solution of silver, so that the silver is exhibited in the metallic state, and in an arborescent form. There are two methods of producing the *arbor Dianæ*, one by Homberg, and the other by Beaumé.

According to Homberg's method, an amalgam is to be formed by rubbing a quarter of an ounce of very pure mercury, and half an ounce of fine silver reduced to leaves or filings, by triturating them together in a porphyry mortar, with an iron pestle. This amalgam is to be dissolved in four ounces of the purest nitric acid of a moderate strength, and the solution is to be diluted with about 24 ounces of distilled water. An ounce of this liquor is to be poured into a glass, and a small piece of a similar amalgam of mercury and silver, of the consistence of butter, is to be introduced. Soon after there may be seen rising from the ball of amalgam a multitude of small shining filaments, which visibly increase in number and size, and throw out branches, so as to form a kind of shrub.

Beaumé's method is as follows.—Six parts of a solution of silver in nitric acid, and four of a solution of mercury in the same acid, both in a state of saturation, are to be mixed together, and a small quantity of distilled water to be added. This mixture it to be poured into a conical glass vessel, containing six parts of an amalgam made of seven parts of mercury and one of silver. At the end of some hours there will appear on the surface of the amalgam a metallic precipitate in the form of a vegetation.

19 Tree of lead.

The other experiment which we have to describe is that of producing a leaden tree, which, as it may be performed on a large scale, and at a trifling expense, is preferable to the former. The method of effecting this decomposition which we have found most effectual, is the following.

Dissolve in distilled or pure rain water a quantity of acetate of lead (sugar of lead), not sufficient to saturate it; viz. in the proportion of four scruples of the salt to the English pint of water. When the solution has become clear, pour it into a cylindrical vessel, or a glass wine decanter of considerable size, and introduce into it an irregular piece of pure bright zinc, suspended by a string, or a piece of brass wire. In the course of a few hours, the zinc will be covered with a dusky grayish mass, having the appearance of moss, and from this are gradually shot out plates or leaves of a brilliant metallic substance. These will extend themselves towards the bottom of the vessel, and will form trunks, branches, and leaves, so as to resemble a leaden tree suspended by its roots from a mossy hill. In this way we have produced a vegetation that has nearly filled a cylindrical glass-jar of a foot in height, and four or five inches in diameter.

SECT. V. *Recreations and Contrivances relating to ELECTRICITY.*

20 Electrical recreations.

THE subject of electricity, like that of chemistry, affords ample room for scientific recreations. Of these we have given a large collection in our treatise on ELECTRICITY, and shall here only enumerate the more striking experiments.

These are, the phenomena produced by paper when excited by caoutchouc or Indian rubber (see ELECTRICITY, Part I. Chap. 3.); the experiments of the *dancing-figures, dancing-balls*, illustrating electrical attraction and repulsion; the *electrical orrery*, and *electrified cotton*, illustrating the action of points; the *electrified spider;* the *magic picture, electrical jack, self-moving wheel, spiral tube, luminous conductor, aurora borealis, electrified can and chain*, and the *thunder-house*.

SECT. VI. *Amusements and Contrivances relating to GALVANISM.*

21 Galvanic amusements.

THE subject of galvanism, though so nearly allied to electricity, is capable of supplying still more extraordinary experiments, many of which are often witnessed with surprise and admiration. Many of these have been related in our treatise of Galvanism. The most striking of these are, the muscular contractions produced in dead animals, especially those of Aldini (GALVANISM, N° 35.); the combustion of charcoal (N° 42.); the deflagration of metals (N° 43.); and the decomposition of water (N° 44.). The experiments on deflagrating the metals, and on other perfect conductors, succeed best with a trough of very large plates of zinc and copper; but experiments on animal bodies, and other imperfect conductors,

Geographical Recreations.

conductors, are most effectual in proportion to the number of plates employed.

Sect. VII. *Recreations and Contrivances relating to Geography.*

22 Geographical recreations.

Some of the problems on the globes, and the use of the *analemma* engraved on Plate CCXXXV. constitute the principal recreations and contrivances relating to geography. To these we shall add only an easy method of approximating to the third problem on the terrestrial globe, (see Geography, N° 67.), namely, having the hour at any place given, to find what hour it is at other places on the earth.

23 Geographical horologium. Fig. 20.

Fig. 20. consists of an outer circle graduated at the edge into 96 equal parts, representing the 24 hours and their quarters, and is marked with two sets of hours from I. to XII. each; the XII. at the top of the figure representing noon, and the XII. at the bottom, midnight. The hours on the right hand are of course those of the evening, and those on the left are morning hours. About the centre of this large circle there is moveable a circular plate, having the figure of a globe in the middle, and having the circumference divided into 360 equal parts, comprehending so many degrees. The diameter marked 0, 180, represents the meridian of London. It has the names of the principal places on the earth marked at its edge. Of these London is the principal, and is engraved in capitals. Now, by means of this contrivance, if the time at any one of these places be given, we can find very nearly the time at the other places marked on the inner circle. Thus, suppose it is X. o'clock in the forenoon at London, to find the hour at the other places in the inner circle, place the word London opposite X. on the left hand; then we shall find that at *Rome* it is a quarter before XI.; at *Berlin* it is about XI.; at *Stockholm* about 20 minutes after XI: at *St Petersburgh* it is noon; at *Bombay* it is nearly III. in the afternoon; at *Pekin* it is nearly VI. in the evening; at *Botany Bay* it is about VIII. in the evening; at *New Zealand* it is X. at night; at *Mexico* it is about III. in the morning; at *Philadelphia* it is V.; and at the *Leeward Islands* about VI. in the morning.

24 Gualtier's game of geography.

The Abbé Gualtier has contrived a game, by which he shows how geography may be taught to young people by means of a set of toys. This method appears to be very ingenious, and is much extolled by those who are acquainted with it. As we have not been able to procure the apparatus, we cannot describe the method, according to which the game is conducted.

25 Edgeworth's portable globe.

Mr Edgeworth proposes that geography should be taught to young people by means of a large globe made of silk, marked with the proper meridians and parallels, to be occasionally inflated; and that the places met with in reading should be laid down according to their proper longitudes and latitudes as they occur. See *Practical Education*, 8vo. vol. ii. p. 239.

Sect. VIII. *Recreations and Contrivances relating to Geometry.*

26 Geometrical recreations.

From among the numerous problems which have been contrived by geometricians, we shall select a few of the most simple and curious.

Geometrical Recreations.

To divide a Rectangular Gnomon into four equal and similar Gnomons.

Suppose we have the rectangular figure A, B, C, D, E, F. fig. 21. (A); it is required to divide it into four equal and similar rectangular figures. Fig. 21.

On examining this figure, we find that the sides AB and BC are equal, and that if the sides AF and CD were produced, they would, by meeting, complete the square, of which the gnomon is evidently a part. The figure therefore forms three-fourths of a square, and may be divided into three squares, AHEF, EHBG, and DEGC. Each of these squares may in like manner be divided into four, as represented by the dotted lines. Thus we have the whole gnomon divided into 12 equal squares, and it is easy to see how from this division we may form four figures, each constituting three-fourths of a square, and consequently similar to the original figure.

From four unequal Triangles, of which three must be Right-angled, to form a Square.

27 To form a square of four unequal triangles. Fig 22.

As the triangles with which this problem is usually performed, are generally made mechanically, by cutting them from a square already formed, we shall for the more easy solution, follow the same method in our first illustration. The square A, B, C, D, fig. 22. is divided into the four triangles E, F, G, H, of which E, F, and G, are evidently right-angled triangles, while H is a scalene triangle.

If these triangles were separate, it would appear very difficult to unite them, so as to form a square. This may be done, however, by reflecting that three of the angles of the square must be formed by the angles of the right-angled triangles, so that these must first be placed as in the figure, while the scalene triangle fills up the vacant space, and by its most acute angle contributes with the most acute angles of the two other large triangles, to form the remaining right angle of the square.

These triangles may be constructed geometrically, without forming them immediately out of a square. For this purpose the following proportions may be employed. Two of the right-angled triangles must have one of the sides about the right angle of the same length in both. The other side about the right angle may be in one, two-thirds of the first side in the same triangle, while in the other it may be one-half. In the third right-angled triangle, one of the sides containing the right angle must, in the present case, be one-third, and the other one-half of the larger side containing the right angle in the two former triangles. Having these three triangles formed, the hypothenuses of which are evidently determined by the length of the sides containing the right angles, we may easily construct the remaining triangle from the hypothenuses of the three triangles already formed, according to the 22d proposition of the first book of Euclid.

To illustrate this by numbers, let us suppose that the side of the square to be formed is = four inches. One of the triangles, as E, will have its longer side = four inches, its shorter = three inches, and its hypothenuse = five inches. The second triangle, as F, will have its longer

(A) We have denominated this figure a *gnomon*, because it resembles, in its outline, that part of a parallelogram which is distinguished by the name of gnomon in the second definition of the second book of Euclid's Elements.

longer side = four inches, its shorter = two inches, and its hypothenuse = square root of 20 (4.472135); and the third triangle, as G, will have its longer side = two inches, its shorter = one inch, and its hypothenuse = square root of 5 (2.236068): the sides of the remaining triangle will be respectively 5 inches, 4.472135 inches, and 2.236068 inches.

28 To form a square of five equal squares. Fig. 23.

To form a Square of five equal Squares.

Divide one side of each of four of the squares, as A, B, C, D, (fig. 23. N° 1, and 2) into two equal parts, and from one of the angles adjacent to the opposite side draw a straight line to the point of division; then cut these four squares in the direction of that line, by which means each of them will be divided into a trapezium and a triangle, as seen fig. 23. N° 1.

Lastly, arrange these four trapeziums and these four triangles around the whole square E, as seen fig. 23. N° 2, and you will have a square evidently equal to the five squares given.

29 Method of describing an oval.

To describe an Ellipsis or Oval geometrically.

The geometrical oval is a curve with two unequal axes, and having in its greater axis two points so situated, that if lines be drawn to these two points, from each point of the circumference, the sum of these two lines will be always the same. See Conic Sections.

Fig. 24.

Let AB (fig. 24.) be the greater axis of the ellipsis to be described; and let ED, intersecting it at right angles, and divided into two equal parts, be the lesser axis, which is also divided into two equal parts at C; from the point D as a centre, with a radius = AC, describe an arc of a circle, cutting the greater axis in F and *f*; these two points are what are called the foci. Fix in each of these a pin, or, if you operate on the ground, a very straight peg; then take a thread or a cord, if you mean to describe the figure on the ground, having its two ends tied together, and in length equal to the line AB, plus the distance F*f*; place it round the pins or pegs F*f*; then stretch it as seen at FG*f*, and with a pencil, or sharp-pointed instrument, make it move round from B, through D, A, and E, till it return again to B. The curve described by the pencil on paper, or on the ground, by any sharp instrument, during a whole revolution, will be the curve required.

This ellipsis is sometimes called the *gardener's oval*, because, when gardeners describe that figure, they employ this method.

An oval figure approximating to the ellipse, may be described at one sweep of the compasses, by wrapping the paper on which it is to be described round a cylindrical surface. If a circle be described upon the paper thus placed, assuming any point as a centre, it is evident that when the paper is extended on a plain surface, we shall have an oval figure, the shorter diameter of which will be in the direction of the axis of the cylinder on which the oval was described. This figure, however, is by no means an accurate oval, though it may serve very well as the border of a drawing, or for similar purposes, where great accuracy is not required.

30 Contrivances for facilitating the study of geometry.

In no science are amusing contrivances more requisite to facilitate the progress of the young pupil than in geometry. We are therefore disposed to regard, with particular attention, every attempt to illustrate and render popular the elements of this science. We may say with Mr Edgeworth, that though there is certainly no royal road to geometry, the way may be rendered easy and pleasant by timely preparations for the journey. Without some previous knowledge of the country, or of its peculiar language, we can scarcely expect that our young traveller should advance with facility or pleasure. Young people should, from their earliest years, be accustomed to what are commonly called the regular solids, viz. the tetrahedron, or regular four-sided solid; the cube, or regular six-sided solid; the octahedron, or regular eight-sided solid; the dodecahedron, or regular 12-sided solid; and the icosahedron, or regular 20-sided solid. These may be formed of card or wood, and Mr Don, an ingenious mathematician of Bristol, has constructed models of these and other mathematical figures, and explained them in an Essay on Mechanical Geometry. Children should also be accustomed to the figures in mathematical diagrams. To these should be added their respective names, and the whole language of the science should be rendered as familiar as possible. *

* See *Edgeworth's Practical Education*, chap. xvi.

31 Le Petit Euclid. Fig. 25.

We have lately met with a contrivance for rendering familiar to children the terms of geometry by means of an easy trick. This contrivance is called *Le Petit Euclid*, and consists of two circular cards, which are represented at fig. 25. Plate CCCCLXXII, and fig 26. Plate CCCCLXXIII. Each of these circles is divided into eight compartments, marked 1, 2, 3, 4, 5, 6, 7, 8, and within each compartment are represented several mathematical figures or diagrams. In the centre of the card represented at fig. 25. is the word *question*, and in that at fig. 26. the word *answer*. On the latter the figures are distinguished by numbers, referring to their explanations in the following table.

N°	N°
1. The cone.	29. The foci of an ellipse.
2. Curve line.	30. Octagon.
3. Quadrant.	31. Rhomboid.
4. A point.	32. Equilateral triangle.
5. Dotted cosine.	33. Pentagon.
6. Dotted secant.	34. Spindle.
7. Cube.	35. A scalene triangle.
8. Pyramid.	36. Parallelogram.
9. A perpendicular.	37. Obtuse-angled triangle.
10. Acute-angled triangle.	38. Dotted height.
11. Decagon.	39. Hyperbola.
12. Hexagon.	40. Dotted conjugate diameter.
13. Square.	41. Dotted hypothenuse.
14. Right-angled triangle.	42. Dotted parameter.
15. Sphere.	43. Rhombus.
16. Circular segment.	44. Dotted diameter.
17. An angle.	45. Dotted sine.
18. Dotted length.	46. An obtuse angle.
19. Parallelopipedon.	47. Parabola.
20. Dotted radius.	48. Cylinder.
21. A sector.	49. External angle.
22. Heptagon.	50. Dotted tangent.
23. The base.	51. Straight line.
24. Dotted abscisse.	52. Ellipsis.
25. Isosceles triangle.	53. Dotted diagonal.
26. Dotted line subtending an angle.	54. Circle.
27. Dotted ordinate.	55. Dotted transverse diameter.
28. Enneagon, or regular 9-sided figure.	56. Prism.

57. Dotted

Geometrical Recreations.

N°
57. Dotted versed sine.
58. Alternate angles.
59. A semicircle.
60. Dotted chord.
61. A right angle.

N°
62. A spherical frustum.
63. Vertical or opposite angles.
64. An acute angle.

To form a trick with these cards, the teacher is to hold the question card, and the pupil the answer card. The teacher is to think of a figure in any one of his compartments, and to mention to the pupil both the number of the compartment in the question, and that in the answer card, on which the figure is found. The pupil is then to begin with the first or outmost diagram on the left hand of the compartment in his own card, where the figure thought on is said to be contained, and to count from this down the left-hand row towards the centre, and thence, if necessary, from the outmost diagram on the right hand of the same compartment towards the centre, till his counting reaches the number of the compartment in the question card, where the figure was at first found.

For example, let us suppose that the teacher thinks on a figure in the compartment of his card marked 2, and that he finds the same figure in the compartment of the answer card which is marked 6. The learner beginning to count from the first figure on the left hand in his sixth compartment, viz. that marked 48, comes immediately to the figure marked 30, which is that thought of by the teacher, and proves to be an octagon. Again, if the figure thought on be found in the sixth compartment of the question card, and in the fifth of the answer card, the learner beginning with the figure marked 15, and passing successively to 22, 24, 57, and 49, comes for his sixth place to 36, the figure thought of, which is a parallelogram.

The design of this contrivance is ingenious; but its execution, at least in the copy which we have seen, is extremely faulty. Many of the terms are misprinted, some of them inaccurate, and the explanation scarcely intelligible. We have endeavoured to rectify these defects, and trust we have succeeded.

Sect. IX. *Recreations and Contrivances relating to Hydrodynamics.*

32 Hydrostatic Recreations.

In our treatise on Hydrodynamics, under which head we have included Hydrostatics and Hydraulics, we have described several entertaining experiments and useful contrivances, and explained them according to hydrostatical principles. Thus, at N° 49 and 50, we have explained the *hydrostatic paradox*, showing that the pressure on the bottoms of vessels filled with fluids does not depend on the quantity of fluid which they contain, but on its altitude; at N° 51, we have illustrated the upward pressure of fluids by the *hydrostatic bellows;* at N° 54 and 55. we have explained and illustrated the use of the syphon; at N° 112 and 113, we have shown how capillary attraction and the attraction of cohesion may be illustrated by experiment; in Chap. III. of Part III. we have described the various machines employed for raising water, such as pumps, fire engines, Archimedes's screw, the Persian wheel, &c. and explained their action; at N° 355, we have described Bramah's hydrostatic press, and at N° 356, *et seq.* we have described and explained the clepsydra with its varieties. The following amusing experiments are derived from Ozanam and Montucla.

Hydrostat Recreations.

33 Tantalus's cup.

To construct a vessel which, when filled to a certain height with any liquor, shall retain the liquor, but shall suffer the whole to escape when filled with the same fluid ever so little above that height.

Let there be a metallic vessel, as ABCD, fig. 27. divided into two parts by a partition F*f*, having in the middle a small round hole, as at M, to receive a tube MS, about two lines in diameter, so that the lower orifice M may descend a little below the partition. This tube is open at both ends, but is to be covered with another a little larger, closed at the top, and having on one side, at the bottom, an aperture, so that when water is poured into the vessel, it may force its way between the two tubes, and rise to the upper orifice S, of the inner tube. This mechanism must be concealed by a small figure of a man in the attitude of stooping to drink, which we may call *Tantalus*. This figure must have its lips a little above the orifice S. Fig. 27.

If water be poured into this vessel, so long at it does not ascend above the orifice S, it will be retained; but as soon as it gets above this orifice, so as to touch the lips of Tantalus, it will begin to run off, the tubes acting in the manner of a syphon, and carrying off the whole of the water into the lower cavity, which ought to have in its side, near the partition, a small aperture for allowing the air which it contains to escape, while the water supplies its place.

This machine may be rendered still more amusing by constructing the small figure of Tantalus in such a manner, that when the water has attained its utmost height, it shall cause the head of the figure to move, so that its lips may approach the fluid, thus representing the gestures of Tantalus endeavouring to catch the water to quench his thirst.

To construct a vessel which, while standing upright, retains the liquor poured into it; but if inclined, as for the purpose of drinking, immediately suffers it to escape.

Let a hole be pierced in the bottom or side of the vessel to which you are desirous of giving this property, and insert in it the longer branch of a syphon, the other extremity of which must reach nearly to the bottom, as seen fig. 28.; then fill the vessel with any liquor as far as the lower side of the bent part of the syphon; it is evident that when inclined, and applied to the mouth, this movement will cause the surface of the water to rise above the bending, and from the nature of the syphon the liquor will begin to flow; and if the vessel is not restored to its former position, will continue doing so till it becomes empty. Fig. 28.

This artifice might be concealed by means of a double cup, as appears at fig. 29.; for the syphon *a b c*, placed between the two sides, will produce the same effect. If the vessel be properly presented to the person whom you are desirous of deceiving, that is to say, in such a manner as to make him apply his lips to the side *b*, the summit of the syphon, the inclination of the liquor will cause it to rise above that summit, and it will immediately escape at *c*. Those persons, however, who are acquainted with the artifice will apply their lips to the other side, and not meet with the same disappointment. Fig. 29.

Method

Hydrostatic Recreations.

Method of constructing an hydraulic machine, in which a bird appears to drink up all the water that spouts up through a pipe, and falls into a basin.

[33] Fig. 30.

Let ABDC, fig. 30. be a vessel, divided into two parts by an horizontal partition EF; and let the upper cavity be divided into two parts also by a vertical partition GH. A communication is formed between the upper cavity BF, and the lower one EC, by a tube LM, which proceeds from the lower partition, and descends almost to the bottom DC. A similar communication is formed between the lower cavity EC, and the upper one AG, by the tube IK, which, rising from the horizontal partition EF, proceeds nearly to the top AB. A third tube, terminating at the upper extremity in a very small aperture, descends nearly to the partition EF, and passes through the centre of a basin RS, intended to receive the water which issues from it. Near the edge of this basin is a bird with its bill immersed in it; and through the body of the bird passes a bent syphon QP, the aperture of which, P, is much lower than the aperture Q. Such is the construction of this machine, the use of which is as follows.

Fill the two upper cavities with water through two holes made for the purpose in the sides of the vessel, and which must be afterwards shut. It may be easily seen that the water in the cavity AG ought not to rise above the orifice K of the pipe KI. If the cock adapted to the pipe LM be then opened, the water of the upper cavity HF will flow into the lower cavity, where it will compress the air, and make it pass through the pipe KI into the cavity AG; in this cavity it will compress the air which is above it, and the air pressing upon it, will force it to spout up through the pipe NO, from whence it will fall down into the basin.

But at the same time that the water flows from the cavity BG, into the lower one, the air will become rarefied in the upper part of that cavity; hence, as the weight of the atmosphere will act on the water already poured into the basin through the orifice O of the ascending pipe NO, the water will flow through the bent pipe QSP, into the same cavity BG; and this motion, when once established, will continue as long as there is any water in the cavity AG.

Sect. X. *Recreations and Contrivances relating to Magnetism.*

34 Magnetic recreations.

The attracting and repelling power of the opposite poles of a magnet, have furnished the writers on scientific recreations with a great variety of entertaining experiments. In our treatise on Magnetism, we have selected a few of these, viz. the communicating piece of money (Magnetism, N° 39.); the *magnetic table* (N° 40.); the *mysterious watch* (N° 41.); the *magnetic dial* (N° 42.); and the *divining circles* (N° 43.) We shall here describe a few other interesting experiments, and refer such of our readers as wish for a greater variety of these amusements, to the original work of Ozanam already mentioned in N° 3, or the *Rational Recreations* of Dr Hooper, and to the 51st part of the *Encyclopédie Methodique*, containing *Amusemens des Sciences*, with the plates on *Amusemens de Physique*, in the 42d part of the same work.

35 The dexterous painter. Fig. 31.

The dexterous Painter.

Provide two small boxes, as M and N (fig. 31.) four inches wide, and four inches and a half long. Let the box M be half an inch deep, and N two thirds of an inch. They must both open with hinges, and shut with a clasp. Have four small pieces of light wood (figs. 32, 33, 34, 35.) of the same size with the inside of the box M (fig. 31.), and about one third of an inch thick. In each of these let there be a groove, as AB, EF, CD, GH; these grooves must be in the middle, and parallel to two of the sides. In each of these grooves place a strong artificial magnet, as fig. 36. The poles of these magnets must be properly disposed with regard to the figures that are to be painted on the boards; as is expressed in the plate. Cover the bars with paper to prevent their being seen; but take care, in pasting it on, not to wet the bars, as they will be rusted, and thus their virtue will be considerably impaired. When you have painted such subjects as you choose, you may cover them with a very thin clear glass. At the centre of the box N, place a pivot, (fig. 37.) on which a small circle of pasteboard OPQR (fig. 38.) is to turn quite free. Under this must be a touched needle S. Divide this circle into four parts, which are to be disposed with regard to the poles of the needle, as is expressed in the figure. In these four divisions paint the same subjects as are on the four boards, but reduced to a smaller compass. Cover the inside of the top of this box with a paper, M, (see fig. 31.) in which must be an opening, D, at about half an inch from the centre of the box, that you may perceive successively, the four small pictures on the pasteboard circle just mentioned. This opening is to serve as the cloth on which the little painter is supposed to draw one of the pictures. Cover the top of the box with a thin glass. Then give the first box to any person, and tell him to place any one of the four pictures in it privately; and when he has closed it, to give it to you, then place the other box over it, when the moveable circle, with the needle, will turn till it comes in the same position with the bar in the first box. It will then appear that the little dexterous painter has already copied the picture that is enclosed in the first box.

Magnetic Recreations.

Fig. 32, 33, 34, 35.

Fig. 31.

The Cylindric Oracle.

36 Cylindric oracle. Fig. 39.

Provide a hollow cylinder about six inches high, and three wide, as AB (fig. 39.) Its cover CD must be made to fix on in any position. On one side of this box or cylinder, let there be a groove, nearly of the same length with that side; in which place a small steel bar (fig. 40.) that is strongly impregnated, with the north pole next to the bottom of the cylinder. On the upper side of the cylinder describe a circle, and divide it into ten equal parts, in which are to be written the numbers from 1 to 10, as is expressed in fig. 41. Place a pivot at the centre of this circle, and have ready a magnetic needle. Then provide a bag in which there are several divisions. In each of these divisions put a number of papers, on which the same or similar questions are to be written. In the cylinder put several different answers to each question, and seal them up in the manner of small letters. On each of these letters or answers is to be written one of the numbers of the dial or circle at the top of the box. You are supposed to know the number of answers to each question. Then offer one of the divisions of the bag, (observing which division it is) to any person, and desire him to draw one of

Magnetic Recreations.

of the papers. Next put the top on the cylinder, with that number which is written on the answer directly over the bar. Then desire the person who drew the question to observe the number at which the needle stands, and to search in the box for a paper of the same number, which he will find to contain the answer.—The experiment may be repeated by offering another division of the bag to the same, or another person; and placing the number that corresponds to the answer over the magnetic bar, proceeding as before.

It is easy to conceive several answers to the same question. For example, suppose the question to be, *Is it proper for me to marry?*

Ans. 1. While you are young, not yet; when you are old, not at all.

2. Marry in haste, and repent at leisure.

3. No, if you are apt to be out of humour with yourself; for then you will have two persons to quarrel with.

4. Yes, if you are sure to get a good husband (or wife), for that is the greatest blessing of life. But take care you are sure.

5. No, if the person you would marry is an angel; unless you would be content to live with the devil.

37 The enchanted ewer. Fig. 42.

Fix a common ewer, as A (fig. 42.) of about 12 inches high, upon a square stand BC; on one side of which there must be a drawer D, of about four inches square, and half an inch deep. In the ewer place a hollow tin cone inverted, as AB (fig. 43.) of about four inches and a half diameter at top, and two inches at bottom; and at the bottom of the ewer there must likewise be a hole of two inches diameter.

Fig. 43.

Upon the stand, at about an inch distance from the bottom of the ewer, and directly under the hole, place a small convex mirror H, of such convexity that a person's visage, when viewed in it at about 15 inches distance, may not appear above $2\frac{1}{2}$ inches long.

Upon the stand likewise at the point I, place a pivot of half an inch high, on which must be fixed a touched needle RQ, inclosed in a circle of very thin pasteboard OS (fig. 44.) of five inches diameter. Divide this pasteboard into four parts, in each of which draw a small circle; and in three of these circles paint a head; as x, y, z, the dress of each of which is to be different; one, for example, having a turban, another a wig, and the other a woman's cap. Let that part which contains the face in each picture be cut out, and let the fourth circle be entirely cut out, as it is expressed in the figure. You must observe, that the poles of the needle are to be disposed in the same manner as in the figures.

Fig. 44.

Next provide four small frames of wood or pasteboard, N° 1, 2, 3, 4, each of the same size with the inside of the drawer. On these frames must be painted the same figures as on the circular pasteboard, with this difference, that there must be no part of them cut out. Behind each of these pictures place a magnetic bar, in the same direction as is expressed in the figures; and cover them over with paper, that they may not be visible. Matters being thus prepared, first place in the drawer the frame N° 4, on which there is nothing painted. Then pour a small quantity of water into the ewer, and desire the company to look into it, asking them if they see their own figures as they are. Then take out the frame N° 4, and give the three others to any one, desiring him to choose in which of those dresses he would appear. Then put the frame with the dress he has chosen in the drawer, and a moment after, the person looking into the ewer will see his own face surrounded with the dress of that picture. For, the pasteboard circle (divided as above described, into four parts, in three of which are painted the same figures as on three of the boards, and the fourth left blank) containing a magnetic needle, and the four boards having each a concealed magnet; therefore when one of them is put in the drawer under the ewer, the circle will correspond to the position of that magnet, and consequently the person looking into the top of the ewer will see his own face surrounded with the head dress of the figure in the drawer. This experiment, well performed, is highly entertaining. As the pasteboard circle can contain only three heads, you may have several such circles, but must then have several other frames: and the ewer must be made to take off from the stand.

38 The box of metals. Fig. 45.

Provide a wooden box, about 13 inches long and 7 inches wide, as ABCD (fig. 45.) The cover of this box should be as thin as possible. Have six small boxes or tablets, about an inch deep, all of the same size and form, as E, F, G, H, I, K, that they may indiscriminately go into similar holes made in the bottom of the large box. In each of these tablets is to be placed a small magnetic bar, with its poles disposed as expressed in the figure. Cover each of these tablets with a thin plate of one of the six following metals, viz. gold, silver, copper, iron, pewter, and lead. Have also a magnetic perspective, at the end of which are to be two circles, one divided into six equal parts, and the other into four (as in fig. 46.), from the centre of which there must be drawn an index N, whose point is to be placed to the north. Therefore, when you are on the side CD of the box, and hold the perspective over any one of the tablets that are placed on the holes E, F, G, so that the index drawn on the circle is perpendicular to the side AB, the needle in the perspective will have its south pole directed to the letter that denotes the metal contained in that tablet. When you hold the perspective over one of the boxes placed in the holes H, I, K, so that the index drawn on the circle is perpendicular to the side CD, the south pole of the needle will, in like manner, express the name of the metal inclosed. If the under side of any of the tablets be turned upwards, the needle will be slower in its motion, on account of the greater distance of the bar. The gold and silver will still have the same direction; but the four other metals will be expressed by the letters on the interior circle. If any one of the metals be taken away, the needle will not then take any of the above directions, but naturally point to the north; and its motion will be much slower. Therefore, give the box to any one, and leave him at liberty to dispose all the tables in what manner and with what side upwards he pleases, and even to take any of them away. Then, by the aid of the perspective, you may tell him immediately the name of the metal on each tablet, and of that which he has taken away.

39 The magnetic planetarium. Fig. 47.

Construct a round box, ILNM (fig. 47.), of eight or nine inches diameter, and half an inch deep. On its bottom fix a circle of pasteboard, on which draw the central circle A, and the seven surrounding circles B, C, D, E, F, G, H. Divide the central circle into seven equal parts by the lines AB, AC, AD, AE, AF, AG, AH, which must pass through the centres of the other

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other circles, and divide each of them into two equal parts. Then divide the circumference of each of these circles into 14 equal parts, as in the figure. Have also another pasteboard of the same figure, and divided in the same manner, which must turn freely in the box by means of an axis placed on a pivot, one end of which is to be in the centre of the circle A (see fig. 48.) On each of the seven smaller circles at the bottom of the box, place a magnetic bar, two inches long, in the same direction with the diameters of those circles, and their poles in the situation expressed in the figure. There must be an index O (fig. 48.) like that of the hour hand of a dial, which is to be fixed on the axis of the central circle, and by which the pasteboard circle in the box may be turned about. There must also be a needle P, which must turn freely on the axis, without moving the circular pasteboard. In each of the seven divisions of the central circle write a different question; and in another circle, divided into 12 parts, write the names of the 12 months. In each of the seven circles write two answers to each question, observing that there must be but seven words in each answer, in the following manner. In the first division of the circle G (fig. 47.), which is opposite to the first question, write the first word of the first answer. In the second division of the next circle, write the second word, and so on to the last word, which will be in the seventh division of the seventh circle.

Fig. 48.

In the eighth division of the first circle, write the first word of the second answer; in the ninth division of the second circle, write the second word of the same answer, and so on to the 14th division of the seventh circle, which must contain the last word of that answer. The same must be done with all the seven questions, and to each of them must be assigned two answers, the words of which must be dispersed through the seven circles. At the centre of each of these circles place a pivot, and have two magneted needles, the pointed end of one of which must be north, and the other south, QR (fig. 48.) Now, the index of the central circle being directed to any one of the questions, if you place one of the two magnetic needles on each of the seven lesser circles, they will fix themselves according to the direction of the bars on the correspondent circles at the bottom of the box, and consequently point to the seven words which compose the answer. If you place one of the other needles on each circle, it will point to the words that are diametrically opposite to those of the first answer; the north pole being in the place of the south pole of the other. Therefore, present this planetarium to any person, and desire him to choose one of the questions there written; and then set the index of the central circle to that question; putting one of the needles on each of the seven circles, turn it about; and when they all settle, they will point to the seven words that compose the answer. The two answers may be one favourable and the other unfavourable, and the different needles will serve to diversify the answers when the experiment is repeated.

Fig. 48.

There may be also a moveable needle to place against the names of the months; and when the party has fixed upon a question, place that needle against the month in which he was born, which will give the business a more mysterious air. On the centre of the large circle may be the figure of the sun; and on each of the seven smaller circles one of the characters of the principal planets. This experiment, well executed, is one of the most entertaining produced by magnetism.

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40 The sagacious swan. Fig. 49.

Provide a box XY (fig. 49.), 18 inches long, nine wide, and two deep, the top of which is to slide off and on at the end Y. Towards the end X, describe a circle of six inches diameter, around which are to be fixed six small vases of wood or ivory, of an inch and a half high, and to each of them there must be a cover. At the end Y place an egg B, of ivory or some such material, about three inches and a half high, with a cover that shuts by a hinge, and fastens with a spring. It must be fixed on the stand C, through which, as well as the bottom of the egg, and the part of the box directly underneath, there is a hole of one-third of an inch diameter. In this cavity place an ivory cylinder F, that can move freely, and which rises or falls by means of the spring R. You must have a thin copper basin, A, of six inches diameter, which is to be placed on the centre of the circle next X, and consequently in the middle of the six vases. Let a proper workman construct the movement expressed by fig. 50. which is composed of a quadrant G, that has 16 teeth, and is moveable about an axis in the stand H, that has an elbow, by which it is screwed to the bottom of the box at L. To the quadrant there must be joined the straight piece K. The horizontal wheel M has 24 teeth, and is supported by the piece S, which is screwed to the end of the box next Y. On the axis of this wheel place a brass rod OP, five inches long; and at the part O place a large bar or horse shoe, of a semicircular form, and about two inches and a half diameter, strongly impregnated. The steel rod V, takes at one end the teeth of the quadrant G, by the pinion F, and at the other end the wheel M, by the perpendicular wheel N, of 30 teeth; the two ends of this rod are supported by the two stands that hold the other pieces. Under the piece K, that joins to the quadrant, must be placed the spring R, by which it is raised, and pushes up the cylinder that goes through the stand C into the egg. You must also have six small cases as Y, Y, Y, Y, Y, Y. These must be of the same circumference with the cylinder in the stand, and round at their extremities; their length must be different, that when they are placed in the egg, and the lower end enters the hole in which is the cylinder, they may thrust it down more or less, when the top of the egg against which they press is fastened down; and thereby lower the bar that is fixed to the end of the quadrant, and consequently by means of the pinion Z and wheels NM turn the horse shoe that is placed upon the axis of the last wheel. The exact length of these cases can be determined by trials only; but these trials may be made with round pieces of wood. In each of these cases place a different question, written on a slip of paper and rolled up, and in each of the vases put the answer to one of the questions; as you will know, by trials, where the magnetic bar or horse shoe will stop. Lastly, Provide a small figure of a swan, of cork or enamel, in which fix a touched needle, of the largest size of those commonly used in sewing.

Being thus prepared, offer a person the six cases, and desire him to choose any one of them, and conceal the rest, or give them to different persons. He is then to open his case, read the question to himself, and return the case, after replacing the question. You then put the

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the case in the egg, and placing the swan in the basin on the water, you tell the company she will soon discover in which of the vases the answer is contained. The same experiment may be repeated with all the cases.

Sect. XI. *Recreations and Contrivances relating to Mechanics.*

41 Mechanic recreations.

In the article Mechanics, we have described some of the lighter experiments by which the principles of that science are illustrated, and have explained the construction and action of several ingenious and useful machines. In particular, we have described the windmill at N° 428.; several carriages that are capable of moving without horses, at Nos. 455, 456, 457, and 458.; a carriage that cannot be overturned, at N° 459.; Atwood's machine for illustrating the doctrines of accelerated and retarded motion, at N° 460.; a machine for illustrating the theory of the wedge, at 467.; a machine for illustrating the effects of the centrifugal force in flattening the poles of the earth, at 468; a machine for trying the strength of materials, at 469.; a machine in which all the mechanical powers are united, 470.; Fiddler's balance at 471.; an improvement in the balance, 472.; a machine for showing the composition of forces, at 473.; Smeaton's machine for experiments on windmill sails, at 474.; Smeaton's machine for experiments on rotatory motion, at 475.; Prony's condenser of forces, at 476.; a portable stone crane for loading and unloading carts, with several other cranes, at 477, 478, 479, 480, and 482.; Bramah's jib for cranes, at 481.; the common worm-jack, at 483.; a portable loading and unloading machine, at 484.; Vauloue's pile engine, at 485. and Bunce's pile engine at 486. We have also, in the articles Androides and Automaton, described several ingenious contrivances for producing various animal motions by means of machinery, or what is commonly called clock-work, especially M. Vaucanson's flute-player, and M. Kempell's chess-player.

In the present article we shall first present our readers with a few mechanical contrivances that may properly be called amusing; shall give the substance of an ingenious paper on the philosophical uses of a common watch; and shall conclude the section with an account of Edgeworth's *Panorganon*, or universal machine for illustrating the effect of the mechanical powers.

42 *To support a pail of water by a stick, only one half of which, or less, rests on the edge of a table.*

Fig. 51. Let AB (fig. 51.) be the top of the table, and CD the stick that is to support the bucket. Convey the handle of the bucket over this stick, in such a manner, that it may rest on it in an inclined position, as HI, and let the middle of the bucket be a little within the edge of the table. That the whole apparatus may be fixed in this situation, place another stick as GFE, with one end, G, resting against the side of the bucket at the bottom, while its middle, F, rests against the opposite edge of the bucket at the top, and its other extremity, E, rests against the first stick CD, in which a notch should be cut to retain it. By these means the bucket will remain fixed in that situation, without inclining to either side; and if not already full of water, it may be filled with safety, for its centre of gravity being in the vertical line passing through the point H, which meets with the table, it is evident that the pail is in the same circumstances as if it were suspended from that point of the table where the vertical line would meet the edge. It is also evident that the stick cannot slide along the table, nor move on its edge, without raising the centre of gravity of the bucket, and of the water which it contains. The heavier it is, therefore, the more stable will be its position.

According to this principle, various other tricks of the same kind, which are generally proposed in books on mechanics, may be performed. For example, provide a bent hook DGF, as seen at the opposite end of the same figure. and insert the part, FD, in the pipe of a key at D, which must be placed on the edge of a table: from the lower part of the hook suspend a weight G, and dispose the whole in such a manner that the vertical line GD may be a little within the edge of the table. When this arrangement has been made, the weight will not fall; and the case will be the same with the key, which, had it been placed alone in that situation, would perhaps have fallen; and this resolves the following mechanical problem, proposed in the form of a paradox: *A body having a tendency to fall by its own weight, how to prevent it from falling, by adding to it a weight on the same side on which it tends to fall.*

To construct a figure which, without any counterpoise, shall always raise itself upright, and preserve or regain that position, however it may be disturbed.

Let a figure, resembling a man, ape, &c. be formed 43
of some very light substance, such as the pith of elder, which is soft, and can easily be cut into any required figure. Then provide a hemispherical base of some very heavy substance, such as lead. The half of a leaden bullet made very smooth on the convex part will be very proper for this purpose. If now the figure be cemented to the plain part of this hemisphere; in whatever position it may be placed it will rise upright as soon as it is left to itself; for the centre of gravity of its hemispherical base being in the axis, tends to approach the horizontal plain as much as possible. This it cannot attain till the axis becomes perpendicular to the horizon; but as the small figure, on account of the disproportion between its weight and that of the base, scarcely deranges the latter from its place, the natural perpendicularity of the axis is easily regained in all positions.

According to this principle were constructed the small figures called Prussians, which some years ago constituted one of the amusements of young people. They were formed into battalions, and being made to fall down by drawing a rod over them, immediately started up again as soon as it was removed. On the same principle screens have been constructed, so as to rise of themselves when they happen to be thrown down.

To make a body ascend along an inclined plane in consequence of its own gravity. 44

Let a body be constructed of wood, ivory, or some Fig. 52.
such material, consisting of two equal right cones united by

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by their bases, as EF (fig. 52.); and let two straight, flat, smooth rulers, as AB, CD, be so placed as to join in an angle at the extremities A, C, and diverge towards BD, where they must be a little elevated, so that their edges may form a gently inclined plane. If now the double cone be placed on the inclining edges, pretty near the angle, it will roll towards the elevated ends of the rulers, and thus appear to ascend; for the parts of the cone that rest on the rulers, growing smaller as they go over a larger opening, and thus letting down the larger part of the body, the centre of gravity descends, though the whole body seems to rise along the inclined plane.

Fig. 52.

To insure the success of this experiment, care must be taken that the height of the elevated ends of the rulers be less than the radius of the circle forming the base of the cones.

44 *Explanation of the upright Position preserved in a Top or Tee-totum while it is revolving.*

This is explained on the principle of centrifugal force, which teaches us that a body cannot move in a circular direction, without making an effort to fly off from the centre; so if it be confined by a string made fast in that centre, it will stretch the string in proportion as the circular motion is more rapid. See DYNAMICS. It is this centrifugal force of the parts of the top or tee-totum that preserves it in an upright position. The instrument being in motion, all its parts tend to fly off from the axis, and that with greater force the more rapid the revolution. Hence it follows that these parts are like so many powers acting in a direction perpendicular to the axis. As, however, they are all equal, and pass rapidly round by the rotation, the instrument must be *in equilibrio* on its point of support, or the extremity of the axis on which it turns. The motion is gradually impeded by the friction of the axis against the surface on which it moves; and we find that the instrument revolves for a longer time, in proportion as this friction is avoided by rendering very smooth the surfaces of the axis, and the plane on which it moves.

45 Philosophical uses of a common watch.

There are many observations and experiments in different departments of science, the accuracy of which depends greatly, and in some cases entirely, on the accurate measurement of minute portions of time; such, for instance, as the determination of the velocity of sound, the nature of the descent of falling bodies, the measure of the sun's diameter, the distance of two contiguous, or at least apparently contiguous, heavenly bodies taken at their passage over the meridian, and the distance of places from the difference of the velocity of light and sound. A pendulum for swinging seconds has usually been employed for these and similar purposes, and in an observatory is found to be very convenient; but a watch, by being more portable, is calculated to be more general in its application, and will measure smaller portions of time than any other instrument that has been invented. Besides, it possesses this peculiar advantage, that in all situations its beats may be counted by the ear, at the same time that the object of observation is viewed by the eye, so that no loss is incurred, as must inevitably happen, when the eye is used to view both the object and pendulum in succession, should this latter be ever so quick. But it will be objected here, that few watches measure time accurately, and that, from the different constructions of watches, the times corresponding to their beats vary in a very considerable degree. We allow these objections to be true, and conceive that to them the reason may be attributed, why the beat of a watch is not generally applied as the measure of the lowest denomination of subdivisions of time. We shall therefore endeavour to obviate these objections, by showing how any tolerably good watch, whatever be its construction, may be applied with advantage to many philosophical purposes.

We must, in the first place, consider, that the portions of time which we propose to measure by a watch are small, and those to be counted not by a second-hand, as is the custom with medical men, but altogether by the beats; in which case, if the watch be not liable to lose or gain time considerably in a day, the error in the rate of going will be extremely minute in the time corresponding to any number of beats that the memory can retain, or that the purposes to which we propose the application to be made will require; and even if the error in the rate of going be considerable, so as to amount to several minutes in a day, as it is uniform, it may easily be allowed for by a correction. Thus, if the error were five minutes per day, the allowance would be upwards of $\frac{1}{300}$th part. Hence the first objection, which relates to the error occasioned by the rate of going of any watch, will constitute no real obstacle to its application in the ascertaining of small portions of time, provided a sudden change of temperature be avoided at the time of using it; for it will be necessary that the rate of going be estimated when the temperature is the same, as when the watch is used for philosophical purposes; so that if it is usually worn in the pocket, it may be held in the hand to the ear, but if it be hanging in a room or in the open air where the rate of going is ascertained, it must be hung near the ear, under similar circumstances, where any observation is intended to be made by it.

As to the other objection, which applies to the variation in the lengths of the beats of two different watches, owing to the difference of their constructions, though they indicate hours and minutes alike, it may be very readily removed. All common watches have the same number of wheels and pinions, which are known by the same names, and placed, no matter how variously, so as to act together without interruption; but all watches have not their corresponding wheels and pinions divided into the same number of teeth and spaces; and from this circumstance the beats of different watches differ from each other. As the rate of going of a watch is regulated by the lengthening or shortening of a spring, without any regard being had to the numbers which compose the teeth of the wheels and pinions, a great latitude is allowable in the calculation of those numbers; of which the different makers avail themselves according as the numbers on the engines they use for cutting the teeth require; but whatever the numbers may be of which the wheel-work consists, if we divide double the product of all the wheels, from the centre wheel to the crown wheel inclusively, by the product of all the pinions with which they act, the quotient will invariably be the number of beats of the watch in question in one hour; and again, if we divide this quotient by 3600, the number of seconds in an hour, this latter quotient will

will be the number of beats in every second, which may be carried to any number of places in decimals, and be copied upon the watch-paper for inspection whenever it may be wanted.

When any particular watch is cleaned, the workman may be directed to count, and return in writing, the numbers of the centre wheel, the third wheel, the contrate wheel, and the crown (balance) wheel, and also of the three pinions which they actuate, respectively, from which the calculation of the length of a beat is easily made by the rule just given, and, when once made, will apply in all instances where that individual watch is used. It may be remarked here, that no notice is taken of the wheels and pinions which constitute the dial work, or of the great wheel and pinion with which it acts; the use of the former of these is only to make the hour and minute hands revolve in their respective times, and may or may not be the same in all watches; and the use of the latter, the great wheel and its pinion, is to determine, in conjunction with the number of spirals on the fusee, the number of hours that the watch shall continue to go, at one winding up of the chain round the barrel of the mainspring. All these wheels and pinions, therefore, it will be perceived, are unnecessary to be taken into the account in calculating the beats per hour. The reason why double the product of the wheels specified is taken in the calculation is, that one tooth of the crown wheel completely escapes the palats at every two beats or vibrations of the balance.

A few examples of the numbers exhibited in the wheels of some common watches will render the general rule which we have laid down more intelligible. We shall take four examples, the first expressing the numbers of a common watch, as given by Mr Emmerson. In this watch the centre wheel contained 54 teeth, its pinion 6 teeth; the third wheel 48 teeth, its pinion 6; the contrate wheel 48 teeth, and its pinion 6; the crown wheel 15 teeth, besides 2 palats. Now, we have $54 \times 48 \times 48 \times 15 \times 2 = 3732480$ for double the product of the specified wheels, and $6 \times 6 \times 6 = 216$ for the product of the specified pinions; also $\frac{3732480}{216} = 17280$ are the number of beats in an hour: accordingly Mr Emmerson says that this watch makes about 4.75 beats in a second. The number of spirals on the fusee is 7; therefore $7 \times \frac{48}{12} = 28$, the number of hours that the watch will go at one winding up: likewise the dial work $\frac{40}{10} \times \frac{36}{12} = \frac{1440}{120} = 12$ shews that whilst the first driving pinion of 10 goes 12 times round, the last wheel of 36 goes only once; whence the angular velocity of two hands carried by their hollow axles are to each other as 12 to 1.

In a second example the numbers in the calculation of beats per second will be as follows, $60 \times 60 \times 60 \times 13 \times 2 = 5616000 =$ double the product of the wheels, and $8 \times 8 \times 6 = 384$, the product of the pinions; then $\frac{5616000}{384} = 14625 =$ the number of beats in an hour, and $\frac{14625}{3600} = 4.0625$, the number of beats per second.

In a third watch the numbers require the following calculation, $54 \times 52 \times 52 \times 13 \times 2 = 3796416$, for double the product of the wheels, and $6 \times 6 \times 6 = 216$, the product of the pinions: therefore $\frac{3796416}{216} = 17576$, the beats in an hour, and $\frac{17576}{3600} = 4.882$, beats per second.

In a fourth, $56 \times 51 \times 50 \times 13 \times 2 = 3712800$, double the product of the wheels, and $6 \times 6 \times 6 = 216$, the product of the pinions, consequently $\frac{3712800}{216}$ gives 17188 beats in an hour, which, divided by 3600, gives 4.7746 for the beats per second.

It remains now to adduce an example or two of the mode of applying the beats of a watch to philosophical purposes.

For one example let us suppose with Dr Herschel, that the annual parallax of the fixed stars may be ascertained by observing how the angle between two stars, very near to each other, varies in opposite parts of the year. For the purpose of determining an angle of this kind, where an accurate micrometer is wanting, let a telescope that has cross wires be directed to the stars when passing the meridian, in such a manner that the upright wire may be perpendicular to the horizon, and let it remain unmoved as soon as the former of the two stars is just coming into the field of view; then fixing the eye to the telescope and the watch to the ear, repeat the word *one* along with every beat of the watch before the star is arrived at the perpendicular hair, until it is in conjunction with it, from which beat go on *two*, *three*, *four*, &c. putting down a finger of either hand at every twenty till the second star is seen in the same situation that the leading one occupied at the commencement of the counting; then, these beats divided by the beats per second, marked on the watch-paper, will give the exact number of uncorrected seconds, by which the following star passes later over the meridian than the leading one. When these seconds and parts of a second are ascertained, we have the following analogy for determining the angle, which includes also the correction, namely,—as $23^h\ 56'\ 4'',098$ (the length of a sidereal rotation of the earth), plus or minus the daily error in the rate of going, are to $360°$; so is the number of observed seconds of time, to the quantity of the horizontal angle required. The watch is here supposed to be regulated to show solar time; but if it should be regulated exactly for sidereal time, instead of $23^h\ 56'\ 4'',098$, we must use exactly 24 hours in the analogy.

As a second instance, let it be required to ascertain the distance of the nearer of two electrified clouds from an observer when there are successive peals of thunder to be heard: a little time before the expected repetition of a flash of lightning place the watch at the ear, and commence the numbering of the beats at the instant the flash is seen, as before directed, and take care to cease with the beginning of the report. Then the beats converted into seconds, with the proportional part of the daily error added or subtracted, will give the difference of time taken up by the motion of the light and sound. If, lastly, we suppose light to be instantaneous at small distances, the distance of the nearer cloud will be had by multiplying the distance that sound is known to pass through in a second by the number of observed seconds obtained from the beats that were counted.

Many

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Many more instances might be pointed out, in which the beats of a good watch would be extremely serviceable in the practical branches of philosophy; but the occurrence of such instances will always point out the propriety of the application, when it is once known and practised.

We shall therefore mention only one further advantage which seems peculiar to this mode of counting a limited number of seconds by a watch, namely, that it is free from any error which might arise from the graduations of a dial-plate, or unequal divisions in the teeth of wheels and pinions, where the seconds are counted by a hand.

In order to introduce this method of measuring small portions of time accurately, it is desirable that a watch be constructed so as to make an exact number of beats per second without a fraction, for then the reduction of beats into seconds would be more readily made. With the view of promoting this object, Mr William Pearson has calculated numbers for a watch, which will produce the desired effect, and which, as they are equally practicable with those in use, we shall here insert. By the method of arrangement already given, the numbers proper for such a watch, as will indicate hours, minutes, and seconds, by three hands, and also make just four beats per second, will stand thus, viz.

50 great wheel
10—60 centre wheel
8—64 third wheel
8—48 contrate wheel
6—15 crown wheel
2 palats.

Dial work as usual.
Six spirals on the fusee—to go 30 hours.

By the preceding general rule for ascertaining the beats per second in any watch, the calculation of these numbers will be thus: $60 \times 64 \times 48 \times 15 \times 2 = 5529600$, and $8 \times 8 \times 6 = 384$; then $\frac{5529600}{384} = 14400$ the beats in an hour, and $\frac{14400}{3600} = 4$ exactly, for the beats per second; which agreement with the rule is a proof of the accuracy of the numbers.

Before we conclude this subject, we may caution medical gentlemen against an imposition which is practised by some watchmakers in the sale of watches with second hands. It is no uncommon thing with some of these workmen to put a second hand with a stop and an appropriate face to a watch, the wheel work of which is not calculated for indicating seconds. The second watch, the numbers of which are set down a little above, was of this kind. In this watch that part of the train which lay between the axle of the centre wheel and that of the contrate wheel on which the hands are placed, viz. $\frac{60}{8} \times \frac{60}{8} =$ to only 56.25, instead of 60, so that $3\frac{3}{4}$ seconds are deficient in every minute, a deficiency which in 16 minutes is equal to a whole revolution of the second hand. *

* See *Nichol. Jour.* 4to, vol. iii.

46 Edgeworth's panorganon.

For the purpose of bringing to our assistance the sense of feeling, in teaching the use of the mechanic powers, Mr Edgeworth has constructed the following apparatus, to which he gives the name of *panorganon*.

It is composed of two principal parts, a frame for containing the moving machinery, and a capstan or windlass erected on a *sill* or plank that is sunk a few inches into the ground. By these means, and by braces or props, the frame is rendered steady. The cross rail or *transom* is strengthened by braces, and a *king-post* to make it lighter and cheaper. The capstan consists of an upright shaft, on which are fixed two drums (about either of which a rope may be wound), and two arms or levers, by which the capstan may be turned round. There is also an iron screw fixed round the lower part of the shaft, to show the properties of the screw as a mechanic power. The rope which goes round the drum, passes over one of the pulleys near the top of the frame, and below another pulley near the bottom. As two drums of different sizes are employed, it is necessary to have an upright roller, for conducting the rope to the pulleys in a proper direction, when either of the drums is used. Near the frame, and in the direction in which the rope runs, is made a platform or road of deal boards, one board in breadth and 20 or 30 feet long, on which a small sledge loaded with different weights may be drawn.

Fig. 53. represents the principal parts of this apparatus. FF, the frame; *b*, *b*, braces to keep the frame steady: *a*, *a*, *a*, angular braces, and a king post to strengthen the transom; S, a round taper shaft, strengthened above and below the mortises, through which the levers pass, with iron hoops; L *d*, two arms or levers by which the shaft, &c. are to be moved round; DD, the drums, which are of different circumferences; R, the roller to conduct the rope; P, the pulley, round which the rope passes to the larger drum; P 2, another pulley to answer to the smaller drum; P 3, a pulley through which the rope passes when experiments are made with levers, &c.; P 4, another pulley through which the rope passes when the sledge is used; R *o*, the road of deal boards for the sledge to move on; S *l*, the sledge with pieces of hard wood attached to it to guide it on the road. Fig. 53.

47 Uses of the panorganon.

As this machine is to be moved by the force of men or children, and as this force varies, not only with the strength and weights of each individual, but also according to the different manner in which that strength or weight is applied, we must in the first place establish one determinate mode of applying human force to the machine, as well as a method of determining the relative force of each individual, whose strength is employed in setting it in motion.

1. *To estimate the force with which a person can draw horizontally by a rope over his shoulder.*

48 Hang a common long scale-beam (without scales or chains) from the top or *transom* of the frame, so that one end of it may come within an inch of one side or post of the machine. Tie a rope to the hook of the scale-beam, where the chains of the scale are usually hung, and pass it through the pulley P 3, which is about four feet from the ground; let the person pull this rope from 1 towards 2, turning his back to the machine, and pulling the rope over his shoulder (fig. 58.) As the pulley may be either too high or too low to permit the rope to be horizontal, the person who pulls it should be placed 10 or 15 feet from the machine, which will lessen the angular direction of the cord, and thus diminish the inaccuracy of the experiment. Fig. 58.

ment. Hang weights to the other end of the scale-beam, till the person who pulls can but just walk forward, pulling fairly without knocking his feet against any thing. This weight will estimate the force with which the person can draw horizontally by a rope over his shoulder.

Let a child who tries this, walk on the board with dry shoes; let him afterwards chalk his shoes, and then try it with his shoes soaped. He will find that he can pull with different degrees of force in these different circumstances. When he makes the following experiments, however, let his shoes be always dry, that he may always exert the same degree of force.

49 2. *To shew the force of the three different kinds of Levers.*

Fig. 54, 55. The lever L (fig. 54.) is passed through a socket (fig. 55.) in which it can be shifted from one of its ends towards the other, so that it may be fastened at any place by the screw of the socket. This socket has two gudgeons, upon which both the socket and the lever which it contains can turn. The socket and its gudgeons can be lifted out of the hole in which it plays between the rails RR (fig. 54.), and may be put into other holes at RR, (fig. 57.).

Hook the cord that comes over the person's shoulder to the end I, of the lever L. Loop another rope to the other end of this lever, and let the person pull as before. Perhaps it should be pointed out that the person must walk in a direction contrary to that in which he walked before, viz. from 1 towards 3 (fig. 53.). The height to which the weight ascends, and the distance to which the person advances, should be carefully marked and measured; and it will be found, that he can raise the weight to the same height, advancing through the same space as in the former experiment. In this case, as both ends of the lever moved through equal spaces, the lever only changed the direction of the motion, and added no mechanical power to the direct strength of the person.

3. Shift the lever to its extremity in the *socket*; the middle of the lever will now be opposite to the pulley (fig. 56.); hook to it the rope that goes through the pulley P 3, and fasten to the other end of the lever the rope by which the person is to pull. This will be a lever of the second kind, as it is called in books of mechanics; in using which, *the resistance is placed between the centre of motion or fulcrum and the moving power.* He will now raise double the weight that he did in experiment 2. and he will advance through double the space.

Fig. 56.

4. Shift the lever, and the socket which forms the axis, (without shifting the lever from the place in which it was in the socket in the last experiment) to the holes that are prepared for it at RR, (fig. 57.). The free end of the lever E will now be opposite to the rope, and to the pulley (over which the rope comes from the scale beam). Hook this rope to it, and hook the rope by which the person pulls to the middle of the lever. The effect will now be different from what it was in the last two experiments; the person will advance only half as far, and will raise only half as much weight as before. This is called *a lever of the third kind.*

Fig. 57.

The experiments upon levers may be varied at pleasure, increasing or diminishing the mechanical advantage, so as to balance the power and the resistance, to accustom the learners to calculate the relation between the power and the effect in different circumstances, always pointing out that whatever excess there is in the power, or in the resistance, is always compensated by the difference of space through which the power passes.

The experiments which we have mentioned are sufficiently satisfactory to a pupil, as to the immediate relation between the power and the resistance; but the different spaces through which the power and the resistance move when one exceeds the other, cannot be obvious, unless they pass through much larger spaces than levers will permit.

5. *To show the different space through which the power and resistance move in different circumstances.* 50

Place the sledge on the farthest end of the wooden road (fig. 53.): fasten a rope to the sledge, and conduct it through the lowest pulley P 4, and through the pulley P 3, so that the person may be enabled to draw it by the rope passed over his shoulder. The sledge must now be loaded, till the person can but just advance with short steps steadily upon the wooden road; this must be done with care, as there will be but just room for him beside the rope. He will meet the sledge exactly on the middle of the road, from which he must step aside to pass the sledge. Let the time of this experiment be noted. It is obvious that the person and the sledge move with equal velocity, there is therefore no mechanical advantage obtained by the pulleys. The weight that he can draw will be about half a hundred, if the weight be about nine stones; but the exact force with which the person draws is to be known by experiment 1.

Fig. 53.

51 Wheel and axle. Fig. 53.

6. To the largest drum (fig. 53.) fasten a cord, and pass it through the pulley P downwards, and then through the pulley P 4, to the sledge placed at the end of the wooden road which is farthest from the machine. Let the person, by a rope fastened to the extremity of one of the arms of the capstan, and passed over his shoulder, draw the capstan round; he will wind the rope round the drum, and draw the sledge upon the road. To make the sledge advance 24 feet upon its road, the person must have walked circularly 144 feet which is six times as far, and he will be able to draw about three hundred weight, which is six times as much as in the last experiment.

It may now be pointed out, that the difference of space, passed through by the power in this experiment, is exactly equal to the difference of weight which the person could draw without the capstan.

7. Let the rope be now attached to the smaller drum; the person will draw nearly twice as much weight upon the sledge as before; and will go through double the space.

8. Where there is a number of persons, left five or six of them, whose power of drawing (estimated as in experiment 1.) amounts to six times as much as the force of the person at the capstan, pull at the end of the rope which was fastened to the sledge; they will balance the force of the person at the capstan: either they or he, by a sudden pull may advance, but if they pull fairly, there will be no advantage on either side. In this experiment the rope should pass through the pulley P 3, and should be coiled round the larger drum. And it must also

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also be observed, that in all experiments upon the motion of bodies, on which there is much friction, as where a sledge is employed, the results are never so uniform as under other circumsances.

52 The pulley.

9. Upon the pulley we shall say little, as it is in every body's hands, and experiments may be tried upon it without any particular apparatus. It should, however, be distinctly inculcated, that the power is not increased by a fixed pulley. For this purpose, a wheel without a rim, or, to speak with more propriety, a number of spokes fixed in a nave, should be employed, (fig. 61.). Pieces like the heads of crutches should be fixed at the ends of these spokes, to receive a piece of girthweb, which is used instead of a cord, because a cord would be unsteady; and a strap of iron with a hook to it should play upon the centre, by which it may sometimes be suspended, and from which at other times a weight may be hung.

Let this skeleton of a pulley be hung by the iron strap from the transom of the frame; fasten a piece of web to one of the radii, and another to the end of the opposite radius. If two persons of equal weight pull these pieces of girthweb, they will balance each other; or two equal weights hung to these webs, will be in equilibrio. If a piece of girthweb be put round the aftermost radius, two equal weights hung at the ends of it will remain immoveable; but if either of them be pulled, or if a small additional weight be added to either, it will descend, and the web will apply itself successively to the ascending radii, and will detach itself from those which are descending. If this movement be carefully considered, it will be perceived that the web, in unfolding itself, acts in the same manner upon the radii, as two ropes would, if they were hung to the extremities of the opposite radii in succession. The two radii which are opposite, may be considered as a lever of the first kind, when the centre is in the middle of the lever: as each end moves through an equal space, there is no mechanical advantage. But if this skeleton-pulley be employed as a common *block* or *tackle*, its motions and properties will be entirely different.

Fig. 61.

10. Nail a piece of girthweb to a post, at the distance of three or four feet from the ground; fasten the other end of it to one of the radii (see fig. 61.). Fasten another piece of web to the opposite radius, and let a person hold the skeleton-pulley suspended from the web; hook weights to the strap that hangs from the centre. The end of the radius to which the fixed girthweb is fastened will remain immoveable; bu if the person pulls the web which he holds in his hand upwards, he will be able to lift nearly double the weight which he can raise from the ground by a simple rope without the machine, and he will perceive that his hand moves through twice as great a space as the weight descends: he has therefore the mechanical advantage, which he would have by a lever of the second kind. Let a piece of web be put round the under radii, let one end of it be nailed to the post, and the other be held by the person, and it will represent the application of a rope to a moveable pulley; if its motion be carefully considered, it will appear that the radii, as they successively apply themselves to the web, represent a series of levers of the second kind.

Upon the wooden road lay down a piece of girthweb; nail one end of it to the road; place the pulley upon the web at the other end of the board; and bringing the web over the radii, let the person taking hold of it, draw the loaded sledge fastened to the hook at the centre of the pulley; he will draw nearly twice as much in this manner as he could without the pulley.

Here the web lying in the road shows more distinctly, that it is quiescent where the lowest radius touches it; and if the radii, as they tread upon it, are observed, their points will appear at rest, while the centre of the pulley will proceed as fast as the sledge, and the top of each radius successively will move twice as far as the centre of the pulley and the edge.

If a person holding a stick in his hand, observes the relative motions of the top and the middle, and the bottom of the stick, whilst he inclines it, he will see that the bottom of the stick has only half the motion of the top. This property of the pulley has been considered more at large, because it elucidates the motion of a wheel rolling upon the ground; and it explains a common paradox, which appears at first inexplicable, the bottom of a rolling wheel never moves *upon* the road. This is asserted only of a wheel moving over hard ground, which, in fact, may be considered rather as laying down its circumference upon the road, than as moving upon it.

11. *The inclined Plane and the Wedge.*

The *inclined plane* is to be next considered. When a heavy body is to be raised, it is often convenient to lay a sloping artificial road of planks, upon which it may be pushed or drawn. This mechanical power, however, is but of little service without the assistance of wheels or rollers; we shall therefore speak of it as it is applied in another manner, under the name of the *wedge*, which is in fact a moving inclined plane; but if it be required to explain the properties of the inclined plane by the panorganon, the wooden road may be raised and set to any inclination required, and the sledge may be drawn upon it as in the former experiments. 53

Fig 59.

Let one end of a lever, N (fig. 59.), with a wheel at one end of it, be hinged to the post of the frame, by means of a gudgeon driven or screwed into the post. To prevent this lever from deviating sideways, let a slip of wood be connected with it by a rail, which shall be part in the lever, but which may move freely in a hole in the rail. The other end of this slip must be fastened to a stake driven into the ground at three or four feet from the lever, at one side of it, and towards the end in which the wheel is fixed (fig. 62.), in the same manner as the treadle of a common lathe is managed, and as the treadle of a loom is sometimes guided.

12. Under the wheel of this lever place an inclined plane (fig. 59.) on the wooden road, with rollers under it, to prevent friction; fasten a rope to the foremost end of the wedge, and pass it through the pulleys (P 4 and P 3), as in the fifth experiment; let a person draw the sledge by this rope over his shoulder, and he will find, that as it advances it will raise the weight upwards; the wedge is five feet long, and elevated one foot. Now, if the perpendicular ascent of the weight, and the space through which he advances, be compared, he will find that the space through which he has passed will be five times as great as that through which the weight has ascended; and that *this* wedge has enabled him to raise five times as much as he could raise without it, if his strength were applied as in experiment 1. without any mechanical

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mechanical advantage. By making this wedge in two parts hinged together, with a graduated piece to keep them asunder, the wedge may be adjusted to any given obliquity; and it will always be found, that the mechanical advantage of the wedge may be ascertained by comparing its perpendicular elevation with its base. If the base of the wedge be 2, 3, 4, 5, or any other number of times greater than its height, it will enable the person to raise respectively 2, 3, 4, or 5 times more weight than he could do in experiment 1. by which his power is estimated.

54 13. *The Screw.*

The screw is an inclined plane wound round a cylinder: the height of all its revolutions round the cylinder taken together, compared with the space through which the power that it turns passes, is the measure of its *mechanical advantage*. Let the lever used in the last experiment be turned in such a manner as to reach from its gudgeon to the shaft of the Panorganon, guided by an attendant lever as before (fig. 60.). Let the wheel rest upon the lowest *helix* or thread of the screw; as the arms of the shaft are turned round, the wheel will ascend, and carry up the weight which is fastened to the lever. As the situation of the screw prevents the weight from being suspended exactly from the centre of the screw, proper allowance must be made for this in estimating the force of the screw, or determining the mechanical advantage gained by the lever. This can be done by measuring the perpendicular ascent of the weight, which in all cases is useful, and more expeditious, than measuring the parts of a machine, and estimating its force by calculation; because the different diameters of ropes, and other small circumstances, are frequently mistaken in estimates—both methods should be employed and their results compared. The space passed through by the moving power, and by that which it moves, are infallible data for estimating the powers of engines.

Fig. 60.

Two very material subjects of experiment yet remain for the Panorganon; friction, and wheels of carriages; but perhaps we may be thought to have extended this section beyond its just proportion to the rest of the article, in which it is not intended to write a treatise upon science, but to point out methods of initiating young people in the rudiments of knowledge, and of giving them a distinct view of those principles on which they are founded. No preceptor who has had experience will cavil at the superficial knowledge of a boy of 12 or 13 upon these subjects; he will perceive that the general view which we wish to give, must tend to form a taste for literature and investigation. The *sciolist* has learned only to *talk*—we wish to teach our pupils to *think* upon the various objects connected with the present article.

The Panorganon may be employed in ascertaining the resistance of air and water; the force of different muscles; and in a great variety of amusing and useful experiments. In academies and private families, it may be erected in the place allotted for amusement, where it will furnish entertainment for many a vacant hour. When it has lost its novelty, the shaft may from time to time be taken down, and a swing may be suspended in its place. *

* *Edgeworth's Practical Education*, vol. ii. chap. xvii.

SECT. XII. *Recreations and Contrivances relating to* Optics.

Optical Recreations.

In the articles Catoptrics, Dioptrics, Microscope and Perspective, we have described a variety of optical recreations, viz. under Catoptrics, Sec. III. Catoptrical illusions; the appearance of a *boundless vista*; a *fortification* apparently of immense extent; a surprising multiplication of objects; the *optical paradox*, by which opaque bodies are seemingly rendered transparent; the *magician's mirror*; the *perspective mirror*; the action of concave mirrors in inflaming combustible bodies, and the *real apparition*. Under Dioptrics, page 244 of Vol. VII. *optical illusions*; the *optical augmentation*, *optical subtraction*; the *alternate illusion*; the *dioptrical paradox*; the *camera obscura*; the method of showing the spots on the sun's disk, and magnifying small objects by means of the sun's rays; the *diagonal opera glass*; the construction and uses of the *magic lantern*; the *nebulous magic lantern*; method of producing the appearance of a *phantom* on a pedestal placed on the middle of a table; and the *magic theatre*. Under Microscope, besides fully explaining the construction of the several kinds of microscopes, and explaining their uses, we have given an account of a great variety of objects which are seen distinctly only by means of these instruments; such as the *microscopic animalcula*; the minute parts of *insects*; the structure of *vegetables*, &c.; and under Perspective, we have described and explained the *anamorphosis*, an instrument for drawing in perspective mechanically, and the *camera lucida* of Dr Wollaston. Under Optics, Part III. Chap. 1. we have explained the construction of the principal optical instruments, as *multiplying glasses*, *mirrors*, improvements on the *camera obscura*, by Dr Brewster and Mr Thomson; *microscopes*, *telescopes*, and various kinds of apparatus for measuring the intensity of light. Under Pyrotechny, N° 150, we have shown how artificial fireworks may be imitated by certain optical deceptions.

55 Optical recreations.

At present we shall only describe one or two additional optical recreations, and explain the nature of the optical deception called *Phantasmagoria*.

Experiment to show the Blue Colour of Shadows formed in Day-Light.

Darken a room in daylight, or towards twilight, so that only a small proportion of light may enter by the shutter. Then holding a lighted candle near the opening of the shutter, cast the shadow of an object, such as a small ruler, on a white paper. There will in general be seen two shadows, the one blue, and the other orange; the former of which resembles the blue colour of the sky in clear sunshine, and is of a greater or less intensity according as the object is brought nearer to a focus.

For explanations of the blue colour of the sky, see Optics, Part II. Sect 4.

The Air-drawn Dagger.

56 The air-drawn dagger. Fig. 62.

An improved variety of the experiments described under Catoptrics, N° 14. by the name of the *real apparition*, is thus described by Montucla. Fig. 62. represents a different position of the mirror and partition from that described under Catoptrics, and one better adapted

adapted for exhibiting the fact by various objects. ABC is a thin partition of a room down to the floor, with an aperture for a good convex lens, turned outwards into the room nearly in a horizontal direction, proper for viewing by the eye of a person standing upright from the floor, or on a stool. D is a large concave mirror, supported at a proper angle, to reflect upwards through the glass in the partition B, images of objects at E, presented towards the mirror below. A strong light from a lamp, &c. being directed on the object E, and nowhere else; then to the eye of a spectator at F, in a darkened room, it is truly surprising and admirable to what effect the images are reflected up into the air at G.

Exhibitions of the appearances of spectres have sometimes been formed on the principles of this experiment; but the most striking deception of this kind is the *phantasmagoria*, which some winters ago formed one of the principal public amusements at Paris and London.

57 Phantasmagoria.

This exhibition was contrived by Mr Philipsthal, and was conducted in a small theatre, all the lights of which were removed, except one hanging lamp, and this could be drawn up, so that its flame was perfectly enveloped in a cylindrical chimney, or opaque shade. In this gloomy and wavering light the curtain was drawn up, and presented to the spectators a sort of cave, with skeletons and other figures of terror, painted or moulded in relievo on the sides or walls. After a short interval the lamp was drawn up into its chimney, and the spectators were in total darkness, interrupted only by flashes of lightning succeeded by peals of thunder. These phenomena were followed by the appearance of figures of departed men, ghosts, skeletons, transmutations, &c. Several figures of celebrated men were thus exhibited with various transformations, such as the head of Dr Franklin, suddenly converted into a skull, &c. These were succeeded by phantoms, skeletons, and various terrific figures, which were sometimes seen to contract gradually in all their dimensions, till they became extremely small, and then vanished; while at others, instead of seeming to recede and then vanish, they were, to the surprise and astonisment of the spectators, made suddenly to advance, and then disappear, by seeming to sink into the ground.*

* *Nichol. Jour.* 8vo. vol. i. 148.

The principal part of these phenomena was produced by a modification of the magic lantern, having all its parts on a large scale, and placed on that side of a semi-transparent screen of taffeta which was opposite to the spectators, instead of the same side, as in the ordinary exhibitions of the magic lantern. To favour the deception, the sliders were made perfectly opaque, except in those places that contained the figures to be exhibited, and in these light parts the glass was covered with a more or less transparent tint, according to the effect required. The figures for these purposes have also been drawn with water colours on thin paper, and afterwards varnished. To imitate the natural motions of the objects represented, several pieces of glass placed behind each other were occasionally employed. By removing the lantern to different distances, and at the same time altering more or less the position of the lens, the images were made to increase or diminish, and to become more or less distinct at the pleasure of the exhibiter; so that, to a person unaccustomed to the effect of optical instruments, the figures appeared actually to advance and retire. In reality, however, figures exhibited in this way become much brighter as they are rendered smaller, while in nature the imperfect transparency of the air causes objects to appear fainter when they are remote, than when they are nearer the observer. Sometimes, by throwing a strong light on an object really opaque, or on a living person, its image was formed on the curtain, retaining its natural motions; but in this case the object must have been at a considerable distance, otherwise the images of its nearer and remoter parts could never be sufficiently distinct at once, as the refraction must either be too great for the remoter, or too small for the nearer parts; and there must also be a second lens placed at a sufficient distance from the first, to allow the formation of an inverted image between them, and to throw a second picture of this image on the screen in its natural erect position, unless the object be of such a nature that it can be inverted without inconvenience *.

* *Young's Lect. on Nat. Phil.* vol. i. 426.

Dr Thomas Young proposes the following apparatus for an exhibition similar to the phantasmagoria. The light of the lamp A (fig. 63.) is to be thrown by the mirror B and the lenses C and D on the painted slider at E, and the magnifier F forms the image of the screen at G. This lens is fixed to a slider, which may be drawn out of the general support or box H; and when the box is drawn back on its wheels, the rod IK lowers the point K, and by means of the rod KL adjusts the slider in such a manner, that the image is always distinctly painted on the screen G. When the box advances towards the screen, in order that the images may be diminished and appear to vanish, the support of the lens F suffers the screen M to fall and intercept a part of the light. The rod KN must be equal to IK, and the point I must be twice the focal length of the lens F, before the object, L being immediately under the focus of the lens. The screen M may have a triangular opening, so as to uncover the middle of the lens only, or the light may be intercepted in any other manner. †

Fig. 63.

† *Ibid.* pl. xxviii.

[57] Walker's phantasmascope.

Mr Ezekiel Walker has lately constructed a new optical instrument, calculated for affording entertainment to those who derive pleasure from optical illusions. This instrument is called *phantasmascope*, and is so contrived, that a person standing before it sees a door opened, and a phantom make its appearance, coming towards him, and increasing in magnitude as it approaches, like those in the phantasmagoria. When it has advanced about 5 feet, it appears of the greatest magnitude, and as it retires, becomes gradually contracted in its dimensions, till it re-enters the machine, when it totally vanishes. This phantom appears in the air like a beautiful painting, and has such a rich brilliancy of colouring, as to render it unnecessary to darken the room. On the contrary, this aërial picture is seen with rather greater perfection when the room is illuminated. Fig. 64. represents a section of this machine, and will explain the principles of its construction.

Fig. 64.

ABCD, a wooden box, 36 inches by 21, and 22 deep. EF, a concave mirror, 15 inches diameter, placed near the end BD. AC, the other end, is divided into two parts at *m* by a horizontal bar, of which *m* is a section. A *m*, a door that opens to the left hand. *n o* a board with a circular opening, 10 inches diameter, covered with plate glass in that side next the mirror. GHI a drawer, opened at the end I, and covered at the top G *m* with tin plate. It is represented in the figure

Optical Recreations.

gure as drawn out 16 inches. *a b* a moveable stage, 15 inches by 6, which slides freely upon the bottom of the drawer by means of a strong brass rod *c a*. *d x* a partition fixed to the stage *a b*, which is 15 inches long, and reaches nearly to the top of the drawer. *x* a circular aperture, 3 or 4 inches in diameter, made near the bottom of the partition, and at equal distances from each end of it. *z a*, a screen, 7½ inches high by 4½, covered with white paper on that side next the mirror. This screen prevents any light, reflected from the end of the drawer, from passing through the aperture *x*. *n p*, part of the cover, fixed as represented in the figure, to prevent the inside of the machine from being seen by the observer.

When this machine is used, take a painting on glass in trasparent colours: place it against the aperture *x* in the partition on that side the mirror, and two short candles on the other side, between *za* and *dx*. The glass must be perfectly opaque, except that part upon which the figure is painted; then the light which is transmitted through the painting and falls upon the mirror, is reflected into the air where the phantom is formed; but the phantom is much more beautiful than the painting, as the colouring receives a particular delicacy from the glasses.

When the painting is in the place represented in the figure, the phantom appears without the machine at *y*; but if the stage be drawn out to the end of the drawer GH, the phantom will appear within the machine at *r*, and very small. A very pleasing effect is also produced from a small painting on paper, or a coloured print put into the place of the painting on glass, with candles on the other side, near *b*.

Mr Walker has shown how this instrument may be employed to exhibit several phenomena in the heavens; as, for example, the appearance of Jupiter and his satellites, and the colour of Mars and the moon.

To represent Jupiter and his satellites as they appear through a common telescope, take a piece of paper stained very black, about 3 inches square, near the middle of which cut a hole perfectly circular, to represent the planet, and 4 small holes, in a line with the centre of the large one, for the satellites; but these must be cut out with a small punch, as it is difficult to make a circular hole with a sharp-pointed instrument. After this paper has been pasted on a piece of glass, rough-ground on one side, draw 3 or 4 lines across the planet with a black lead pencil to imitate the belts. From this simple contrivance the machine produces a very beautiful effect. The new moon represented in this way is a striking resemblance of the real object in the heavens: comets and fixed stars may also be represented by the same method.

The colour of Mars and of the moon, at rising or setting, may be imitated by covering the screen *z a* with paper stained red, which will reflect a ruddy tint upon the object placed at *x*; and this tint may be increased or decreased by only altering the situations of the candles. *

* *Phil. Mag.* vol. xxvii. 97.

58 Pneumatic recreations.

Sect. XIII. *Recreations and Contrivances relating to Pneumatics.*

In our treatise on Pneumatics, we have related several entertaining experiments, illustrating the principles of that science, such as experiments proving the fluidity of the air in N° 52; that of *Hero's fountain* in N° 54; experiments illustrating the application of hydrostatics to air, N° 57, *et seq.*; a great variety of experiments with the *air pump*, N° 160; the experiment of the *syphon fountain*, N° 178; and experiments on the compressibility and expansibility of the air, N° 196, &c. We have also, in that article, explained the construction and operation of the principal pneumatical engines, such as *syringes*, *syphons*, *air-pumps*, *bellows*, &c. The construction and uses of *barometers* have been explained under Barometer, and under Hydrodynamics, N° 72. Those of *thermometers* under Chemistry from N° 194. to 203; and those of *common pumps* under the article Pump.

Pneumatical Recreations.

59 Air-gun.

As the account of the air-gun, referred to Pneumatics, has been omitted in that article, we must here describe the construction and action of that ingenious instrument.

The common air-gun is made of brass, and has two barrels; the inside barrel A, fig. 65. which is of a small bore, from whence the bullets are exploded; and a larger barrel ECDR on the outside of it. There is a syringe SMNP fixed in the butt of the gun, by which the air is injected into the cavity between the two barrels through the valve EP. The ball K is put down into its place in the small barrel, with the rammer, as in any other gun. At SL is another valve, which being opened by the trigger O, permits the air to come behind the bullet, so as to drive it out with great force. If this valve be opened and shut suddenly, one charge of condensed air may be sufficient for several discharges of bullets; but if the whole air be discharged on a single bullet, it will drive it out with a greater force. The discharge is effected by means of a lock, placed here as in other guns: for the trigger being pulled, the cock will go down and drive the lever O, fig. 65. which will open the valve, and let in the air upon the bullet K.

Fig. 65.

The air-gun has received very great improvements in its construction. Fig. 66. is a representation of one now made by several instrument-makers in the metropolis. For simplicity and perfection it exceeds any hitherto contrived. A is the gun-barrel, with the lock, stock, rammer, and of the size and weight of a common fowling-piece. Under the lock, at *b*, is a steel tube having a small moveable pin in the inside, which is pushed out when the trigger *a* is pulled, by the spring-work within the lock; to this tube *b*, is screwed a hollow copper ball *c*, so as to be perfectly air tight. This copper ball is fully charged with condensed air by the syringe B, fig. 67. previous to its being applied to the tube *b* of fig. 66. It is evident, that if a bullet be rammed down in the barrel, the copper ball screwed fast at *b*, and the trigger *a* be pulled, that the pin in *b* will, by the action of the spring-work within the lock, forcibly strike out into the copper ball; and thereby pushing in suddenly a *valve* within the copper ball, let out a portion of the condensed air, which will rush up through the aperture of the lock, and forcibly act against the bullet, driving it to the distance of 60 or 70 yards, or farther. If the air be strongly condensed, at every discharge, only a portion of it escapes from the ball; therefore by recocking the piece, another discharge may be made; and this repeated 15 or 16 times.

Fig. 66.

Fig. 67.

The air in the copper ball is condensed by means of the

Fig. 1.

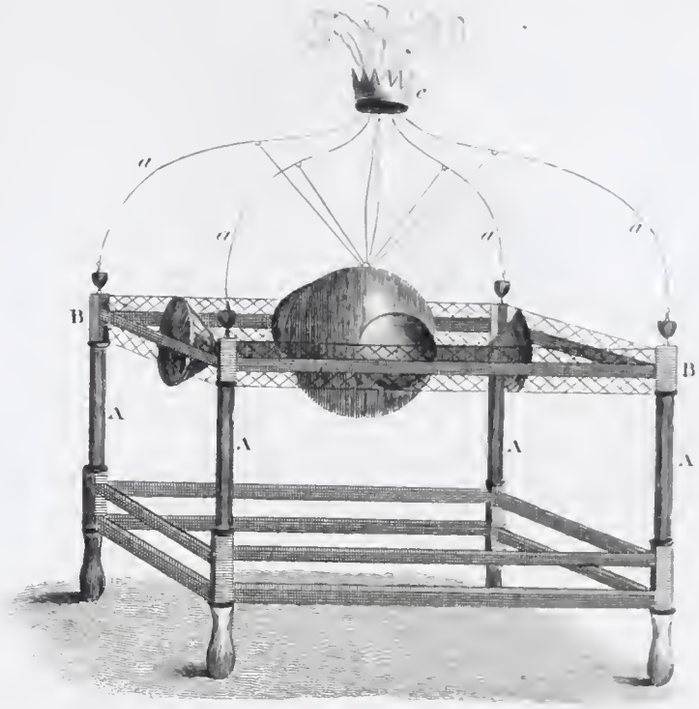
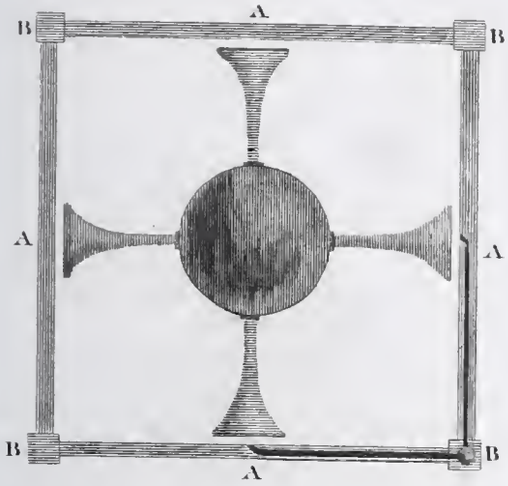


Fig. 2.



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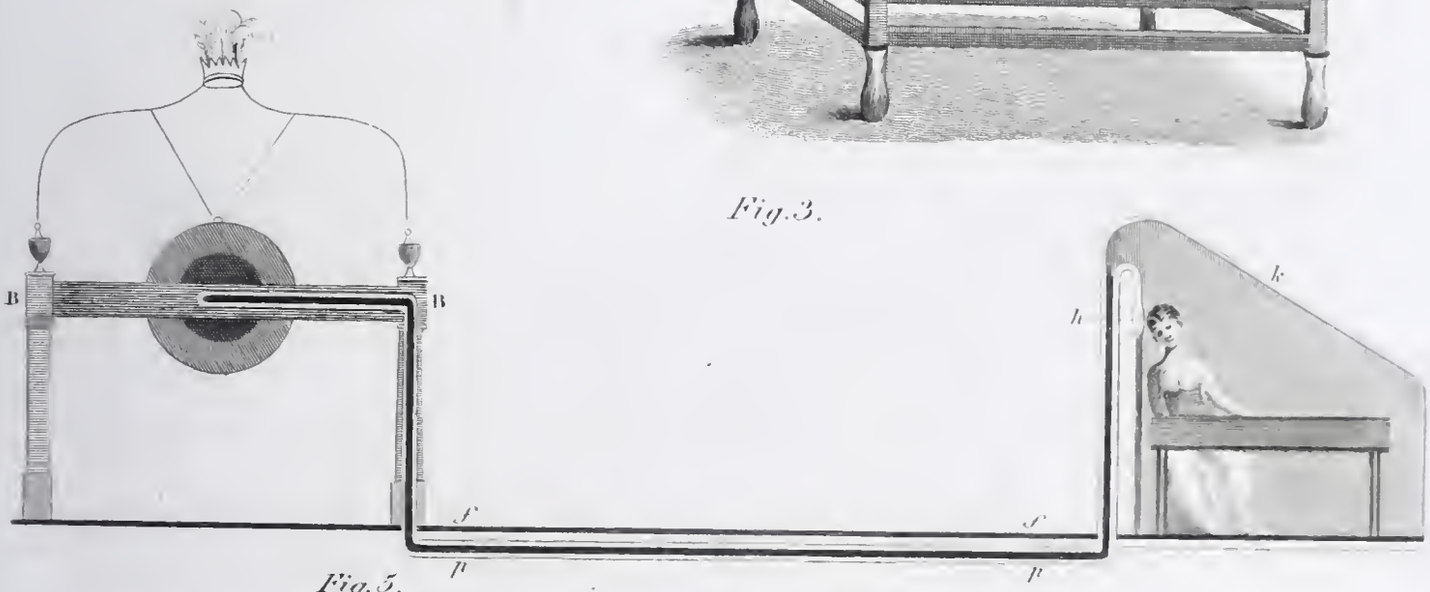

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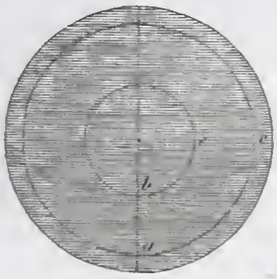

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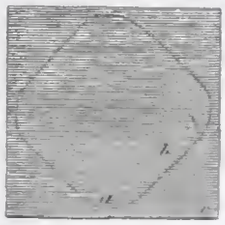

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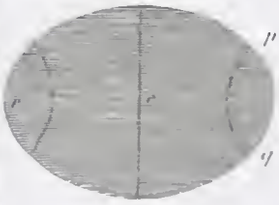
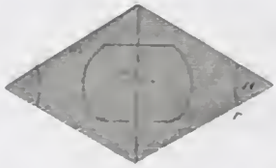


Fig. 8.

Fig. 9.

Fig. 10.



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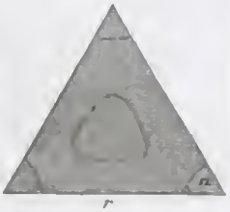

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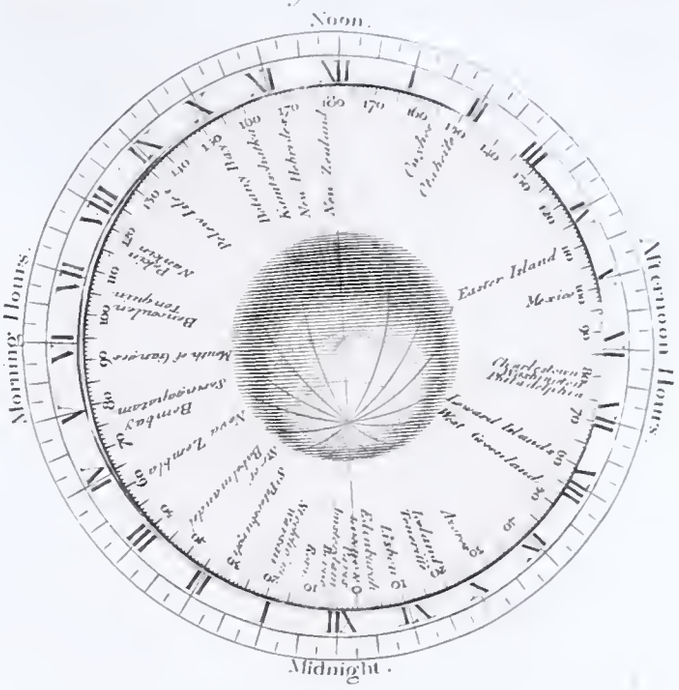

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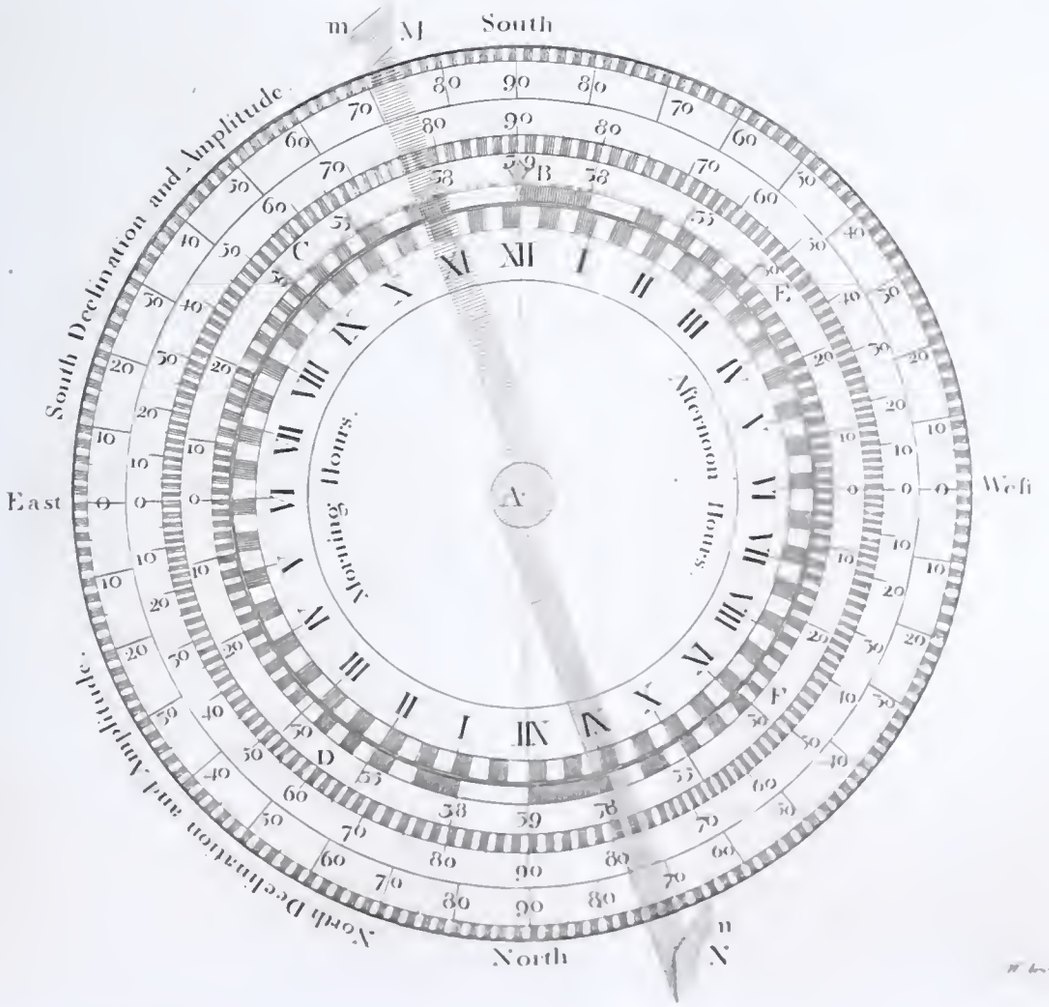

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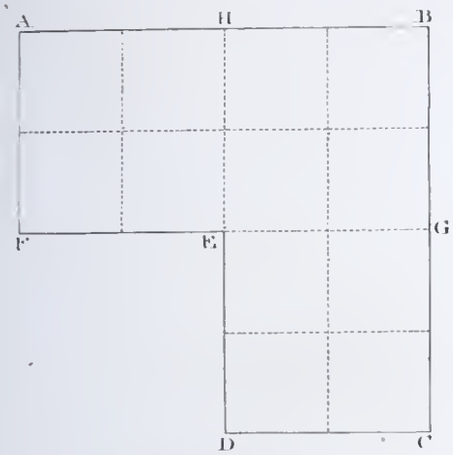

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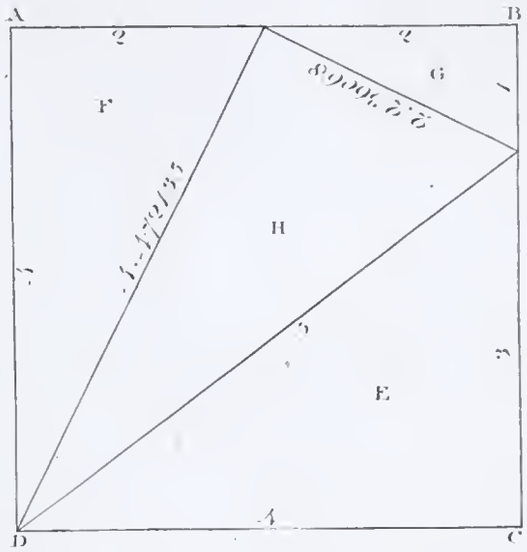

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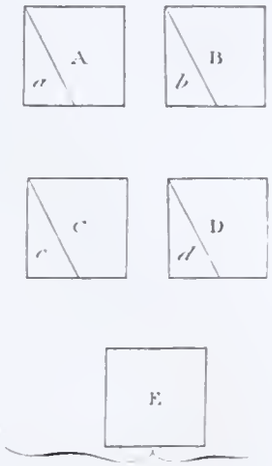

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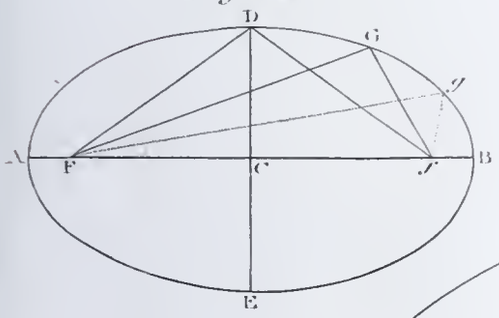
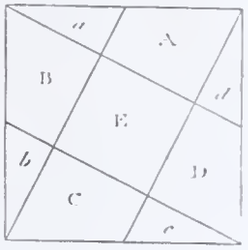


Fig. 23. N°. 2.



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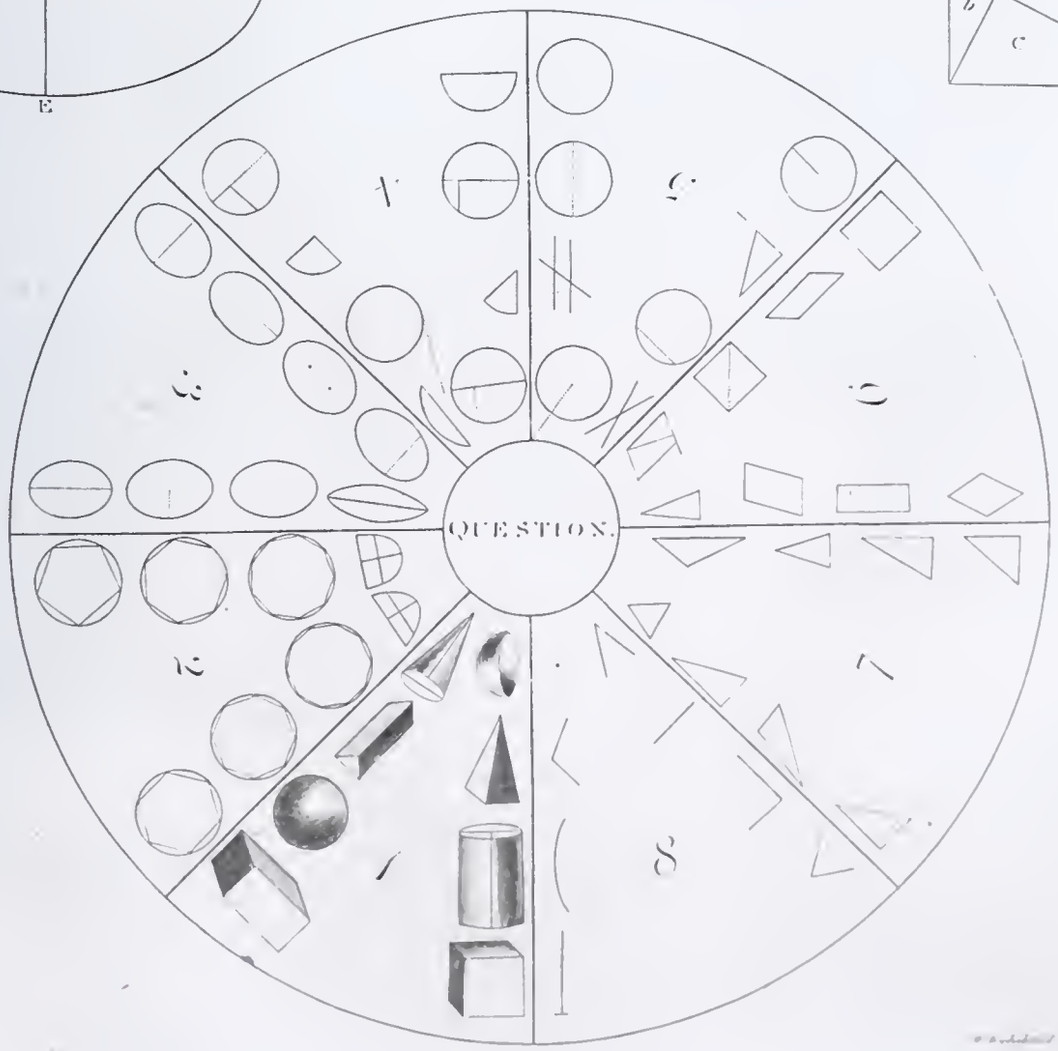

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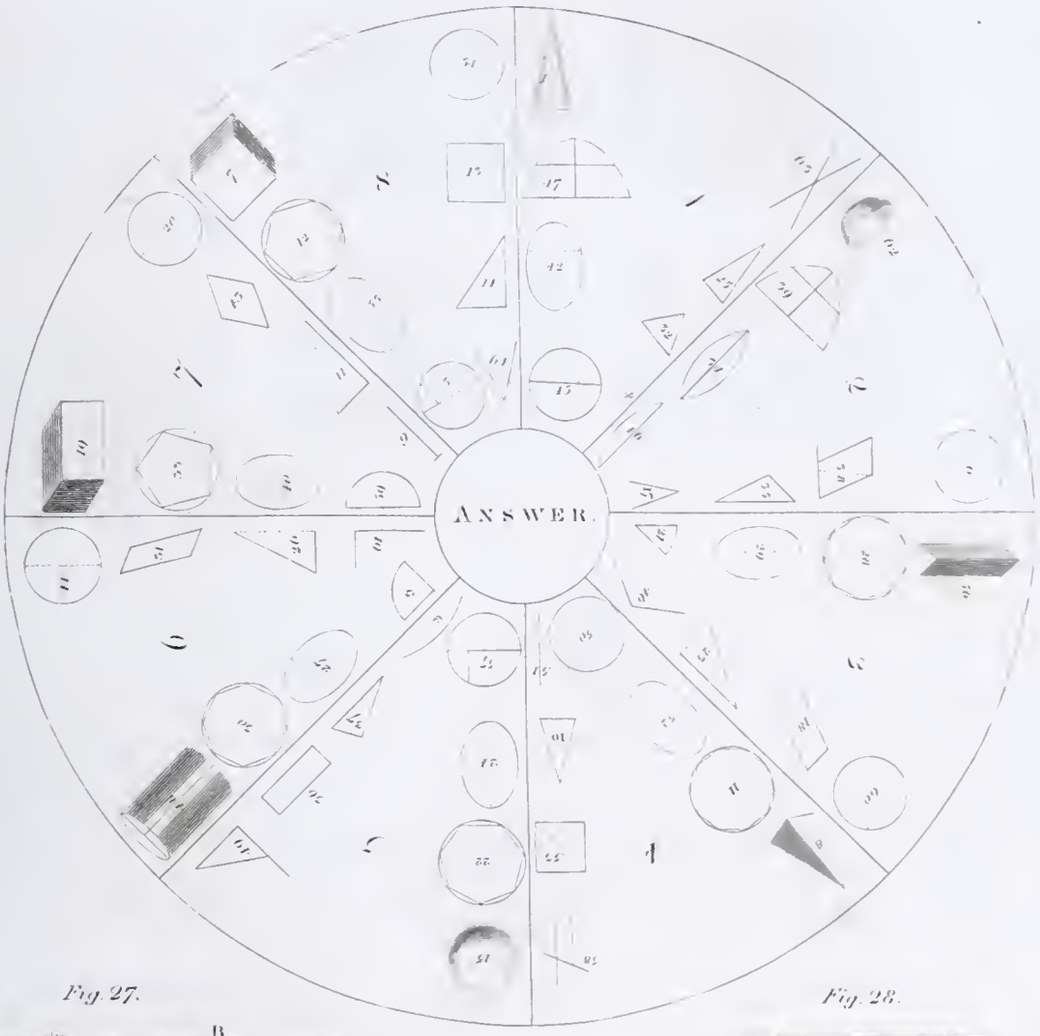

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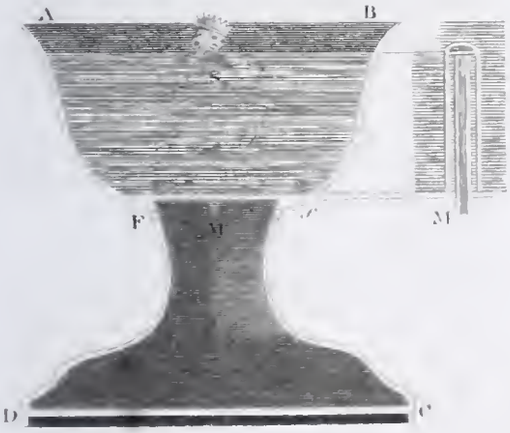

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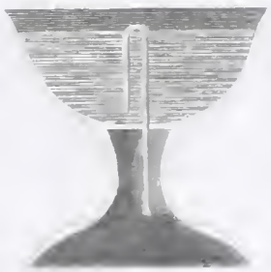

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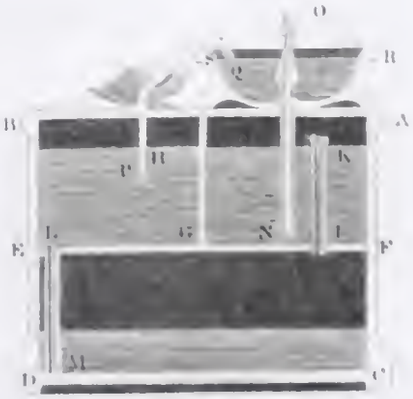

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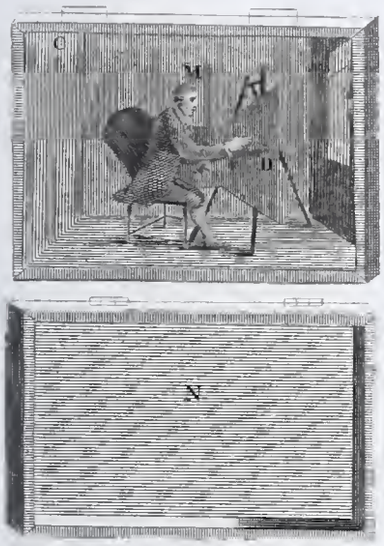

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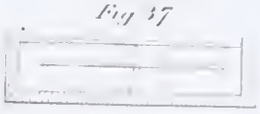

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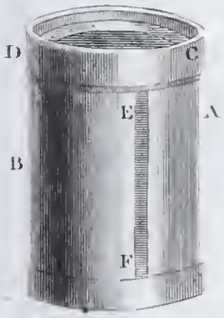

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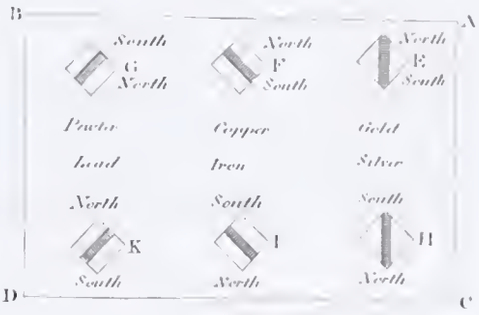

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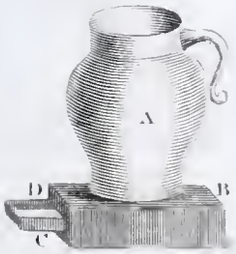

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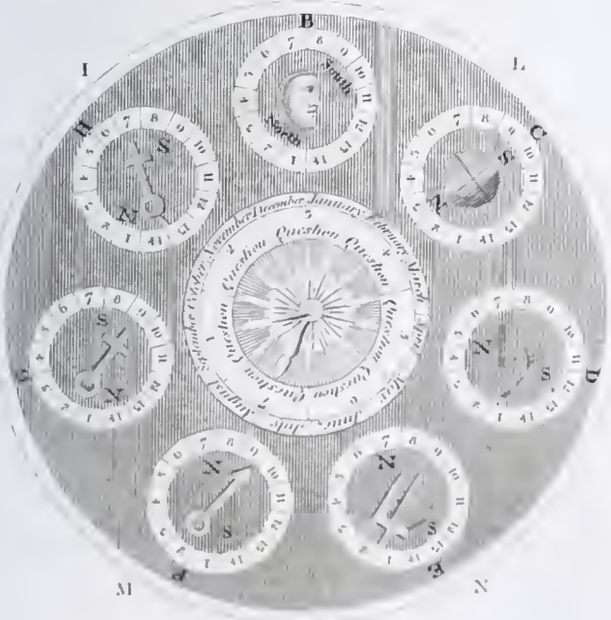
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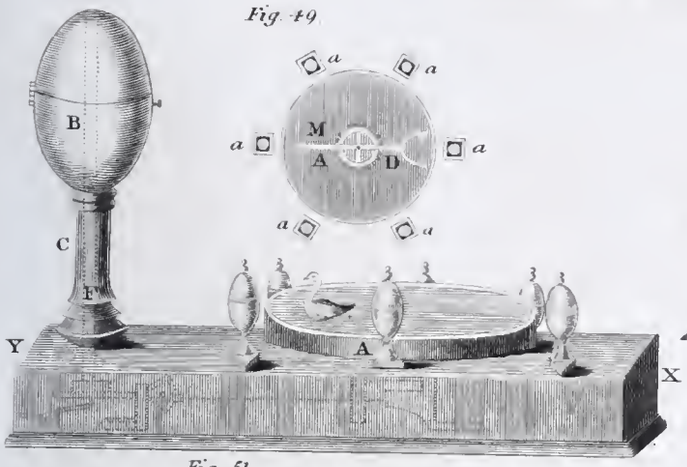

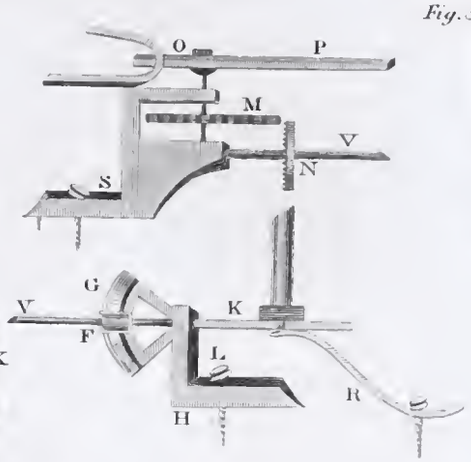

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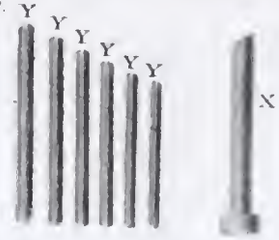

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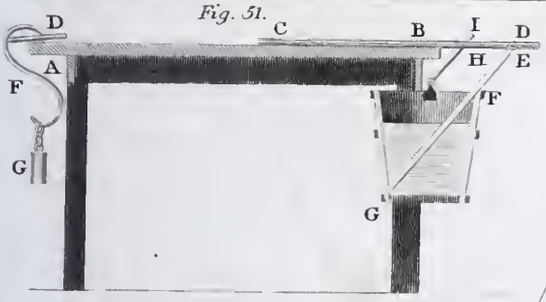

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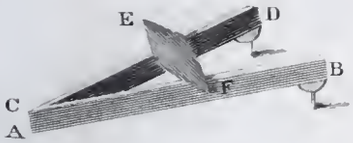

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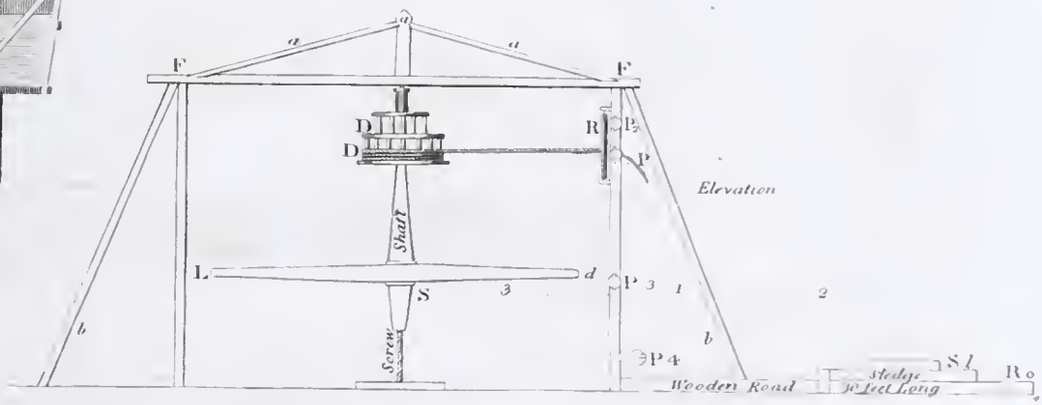

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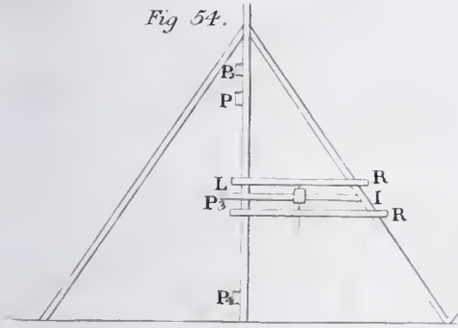

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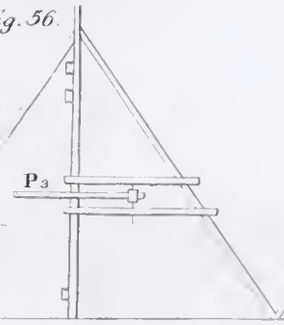

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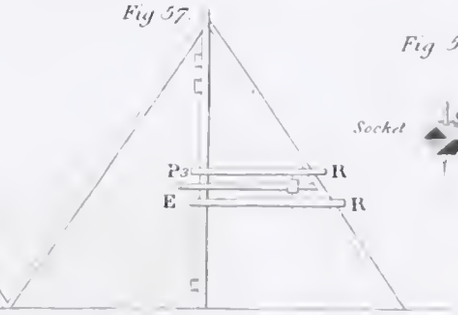


Fig. 55

Fig. 58.

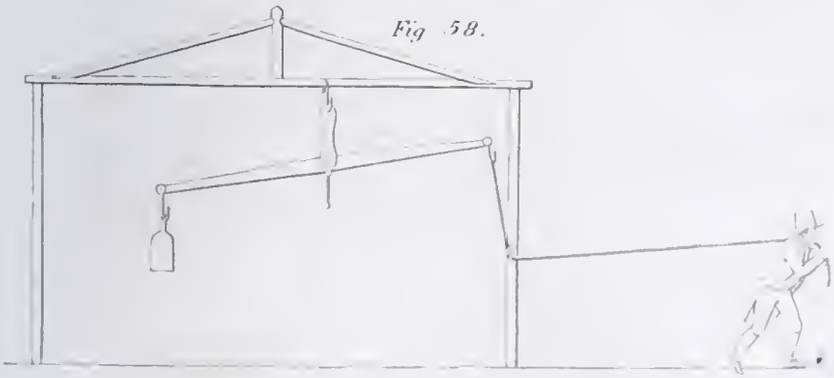
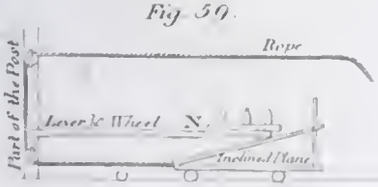


Fig. 61.

Fig. 59.



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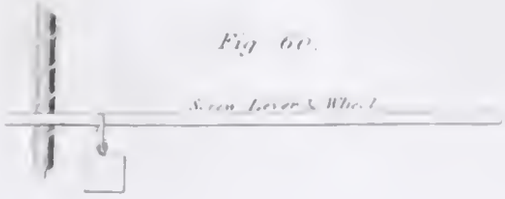

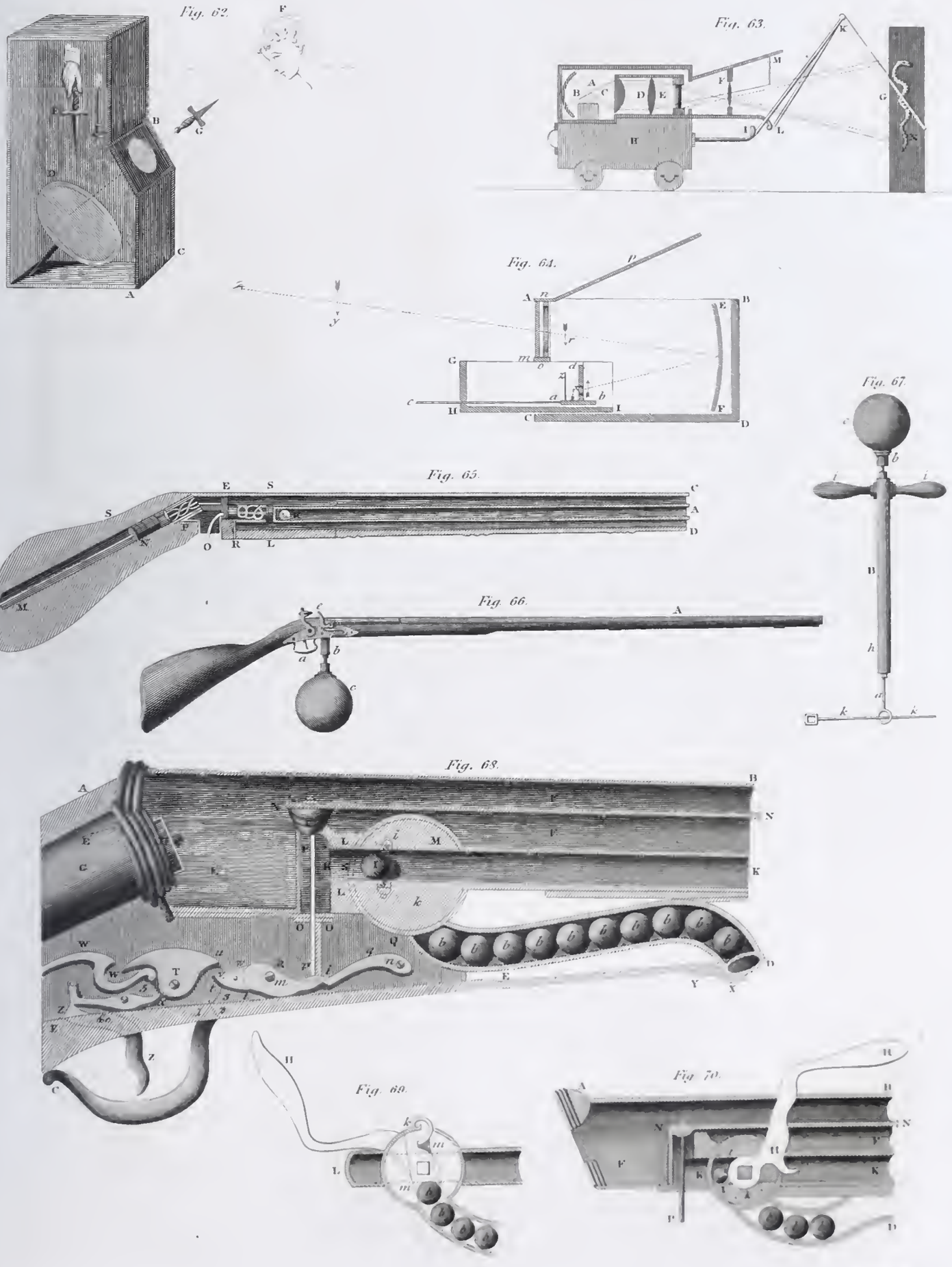
Fig. 62.
Fig. 63.
Fig. 64.
Fig. 65.
Fig. 66.
Fig. 67.
Fig. 68.
Fig. 69.
Fig. 70.

Pneumatical Recreations.

the syringe B (fig. 67.), in the following manner. The ball *c* is screwed quite close in the top of the syringe at *b*, at the end of the steel pointed rod; *a* is a stout ring through which passes the rod *k*: upon this rod the feet are commonly placed, then the hands are to be applied to the two handles *i i*, fixed on the side of the barrel of the syringe. Now by moving the barrel B steadily up and down on the rod *a*, the ball *c* will become charged with condensed air; and it may be easily known when the ball is as full as possible, by the irresistible action which the air makes against the piston while working the syringe. At the end of the rod *k* is usually a square hole, which with the rod serves as a key to make the ball *c* fast on the screw *b* of the gun and syringe close to the orifice in the ball *c*. In the inside is fixed a valve and spring, which gives way for the admission of air; but upon its emission comes close up to the orifice, shutting up the internal air. The piston rod works air-tight, by a collar of leather on it on the barrel B; it is therefore plain, that when the barrel is drawn up, the air will rush in at the hole *b*. When the barrel is pushed down, the air contained in it will have no other way to pass, from the pressure of the piston, but into the ball *c* at top. The barrel being drawn up, the operation is repeated, until the condensation is so strong as to resist the action of the piston.

The magazine air-gun was invented by that ingenious artist L. Colbe. By this contrivance 10 bullets are so lodged in a cavity, near the place of discharge, that they may be drawn into the shooting barrel, and successively discharged so fast as to be nearly of the same use as so many different guns.

Fig. 68.

Fig. 68. represents the present form of this machine, where part of the stock is cut off, to the end of the injecting syringe. It has its valve opening into the cavity between the barrels as before. KK is the small shooting barrel, that receives the bullets from the magazine ED, which is of a serpentine form, and closed at the end D when the bullets are lodged in it. The circular part *a b c*, is the key of a cock, having a cylindrical hole through it, *i k*, which is equal to the bore of the same barrel, and makes a part of it in the present situation. When the lock is taken off, the several parts Q, R, T, W, &c. come into view, by which means the discharge is made by pushing up the pin P *p*, which raises and opens a valve V to let in the air against the bullet I, from the cavity FF, which valve is immediately shut down again by means of a long spring of brass NN. This valve V being a conical piece of brass, ground very true in the part which receives it, will of itself be sufficient to confine the air.

To make a discharge, the trigger ZZ is to be pulled, which throws up the seer *y a*, and disengages it from the notch *a*, on which the strong spring WW moves the tumbler F, to which the cock is fixed. This, by its end *n*, bears down the end *v* of the tumbling lever R, which, by the other end *m*, raises at the same time the flat end of the horizontal lever Q; and by this means, of course, the pin P *p*, which stands upon it, is pushed up, and thus opens the valve V, and discharges the bullet. This is all evident, merely from the view of the figure.

To bring another bullet to succeed that marked I, instantaneously turn the cylindric cavity of the key of the cock, which before made part of the barrel KK, into the situation *i k*, so that the part *i* may be at K; and hold the gun upon your shoulder, with the barrel downwards and the magazine upwards, by which means that bullet next the cock will fall into it out of the magazine, but go no further into this cylindric cavity than the two little springs *f s* which detain it. The two circles represent the cock barrel, wherein the key formerly mentioned turns upon an axis not represented here, but visible in fig. 69. This axis is a square piece of steel, on which comes the square hole of the hammer H, fig. 70. by which the cylindrical cavity mentioned is opened to the magazine. Then opening the hammer, as in that figure, the bullet is brought into its proper place near the discharge valve, and the cylindric cavity of the key of the cock again makes a part of the inward barrel KK.

Fig. 69. Fig. 70.

It appears how expeditious a method this is of charging and discharging a gun; and, were the force of condensed air equal to that of gun-powder, such an air-gun would answer the purpose of several guns.

In the air-gun, and all other cases where the air is required to be condensed to a very great degree, it will be requisite to have the syringe of a small bore, viz. not exceeding half an inch in diameter, because the pressure against every square inch is about 15 pounds, and therefore against every circular inch about 12 pounds. If, therefore, the syringe be one inch in diameter, when one atmosphere is injected, there will be a resistance of 12 pounds against the piston; and when 10 are injected, there will be a force of 120 pounds to be overcome; whereas 10 atmospheres act against the circular half-inch piston with only a force equal to 30 pounds; or 40 atmospheres may be injected with such a syringe, as well as 10 with the other. In short, the facility of working will be inversely as the squares of the diameter of the syringe.

It is not certain when, or by whom the air-gun was invented. Montucla ascribes the invention to Otto Guerricke, burgomaster of Magdeburg, so celebrated about the middle of the 17th century for his pneumatic and electrical experiments; but it is certain that air-guns, or wind-guns, as they were sometimes called, were known long before the time of Guerricke. In the *Elemens d'Artillerie* of David Rivant, preceptor to Louis XIII. of France, this instrument is, we believe, first noticed in writing; and here the invention is attributed to one Marin, a burgher of Lisieux, who presented an air-gun to Henry IV. The air-gun is now considered rather as a curious philosophical instrument, than a useful offensive or defensive weapon; and its use in the latter capacity is, we believe, forbidden by law.

60 Easy method of constructing small fire-balloons.

The subject of balloons has been fully discussed under the article Aerostation. For the sake of experiment, fire-balloons, or Mongolfiers, of a moderate size, may be constructed, by pasting together gores of lawn paper meeting at the top, and having the other extremities pasted round a light and slender hoop, from which proceeds several wires terminating in a kind of basket, capable of supporting a sponge dipped in rectified spirit of wine. If the gores are properly formed and neatly joined, the balloon will be so far air-tight, that the expanded air within it, caused by the inflammation of the spirit, will inflate the cavity, and enable the balloon to rise to a considerable height in the atmosphere. It is obvious that such an experiment can be made only in calm weather.

Scilla, Scilly.

SCILLA, the Squill; a genus of plants, belonging to the hexandria class; and in the natural method ranking under the 10th order, *Coronariæ*. See Botany and Materia Medica *Index*.

SCILLY, or Silley, a cluster of small islands and rocks, situated in the Atlantic ocean, and about 10 leagues W. of the Land's End in Cornwall, in W. Long. 7°. N. Lat. 50°.

These islands were first called *Cassiterides*, or the *Tin Isles*, from their being rich in that metal. The common opinion is, that this is a Greek appellation; which in the most obvious sense is true: But as the Phœnicians were familiar with the metal, and with the country that produced it, before the Greeks knew any thing of either, it is very likely they introduced the names of both from their own language. Strabo says these islands were ten in number, lying close together, of which only one was uninhabited: the people led an erratic life, lived upon the produce of their cattle, wore an under-garment which reached down to their ankles, and over that another, both of the same colour, which was black, girt round a little below the breast with a girdle, and walked with staves in their hands. The riches of these islands were tin and lead, which, with the skins of their cattle, they exchanged with foreign merchants, that is, the Phœnicians from Cadiz, for earthen ware, salt, and utensils made of brass. An author of as great or greater antiquity, seems to include a part at least of Cornwall amongst these islands; or rather he suggests, that they were not perfect islands except at full sea, but that at ebb the inhabitants passed from one to another upon the sands, and that they even transported their tin in large square blocks upon carriages from one island to another. He further takes notice, that such as inhabited about Belerium (the Land's End) were in their conversation with strangers remarkably civil and courteous. Other ancient writers style these islands *Hesperides*, from their western situation, and *Oestrymnides*, asserting that the land was extremely fertile, as well as full of mines; and that the people, though very brave, were entirely addicted to commerce, and boldly passed the seas in their leather boats.

The Romans were exceedingly desirous of having a share in this commerce, which the Phœnicians as carefully laboured to prevent, by concealing their navigation to these islands as much as it was in their power. At length, however, the Romans prevailed; and Publius Crassus coming thither, was so well pleased with the industry and manners of the people, that he taught them various improvements, as well in working their mines, which till that time were but shallow, as in carrying their own merchandise to different markets. There is no room to doubt that they followed the fate of the rest of Britain, and particularly of Cornwall, in becoming subject to the Roman empire. We find them called in the itinerary of Antoninus, *Sigdeles*; by Sulpitius, *Sillenæ*; and by Solinus they are termed *Silures*. All we know of them during this period is, that their tin trade continued, and that sometimes state-prisoners were exiled, or, to use the Roman phrase, relegated hither as well as to other islands.

When the legions were withdrawn, and Britain with its dependencies left in the power of the natives, there is no reason to question that these islands shared the same lot with the rest. As to the appellation which from this period prevailed, the ordinary way of writing it is *Scilly*: in records we commonly find it spelt *Silly*, *Silley*, or *Sulley*; but we are told the old British appellation was *Sulleh*, or *Sylleh*, which signifies rocks consecrated to the sun. We have not the least notice of any thing that regards them from the fifth to the tenth century. It is, however, with much appearance of truth conjectured, that some time within this space they were in a great measure destroyed by an earthquake, attended with a sinking of the earth, by which most of their lowlands, and of course the greatest part of their improvements, were covered by the sea, and those rich mines of tin which had rendered them so famous swallowed up in the deep. They have a tradition in Cornwall, that a very extensive tract of country called the *Lioness*, in the old Cornish *Lethosow*, supposed to lie between that country and Scilly, was lost in that manner; and there are many concurrent circumstances which render this probable. In reference to these islands, the case is still stronger; for at low ebbs their stone inclosures are still visible from almost all the isles, and thereby afford an ocular demonstration that they were formerly of far greater extent, and that in remoter ages their inhabitants must have been very numerous, and at the same time very industrious. This sufficiently proves the fact, that by such an earthquake they were destroyed: and, that it happened at some period of time within those limits that have been assigned, appears from our hearing nothing more of their tin trade, and from our having no notice of it at all in any of our ancient chronicles, which, if it had fallen out later, from their known attention to extraordinary events, must certainly have happened.

It is generally supposed, and with great appearance of truth, that king Athelstan, after having overcome a very powerful confederacy formed against him, and having reduced Exeter, and driven the Britons beyond the river Tamar, which he made the boundary of their Cornish dominions, passed over into these islands, (then surely in a better state than now, or they would not have been objects of his vengeance), and reduced them likewise. History does not inform us, that the Danes ever fixed themselves in these islands; but as their method of fortifying is very well known, it has been conjectured that the Giant's Castle in the isle of St Mary was erected by them; and indeed, if we consider the convenient situation of these islands, and the trade of piracy which that nation carried on, there seems to be nothing improbable in that conjecture. It is more certain that there were churches erected in these isles, and that there were in them also many monks and hermits, before the conquest.

The fertility of the islands is much insisted upon in all the accounts; and it is expressly said of St Mary's, that it bears exceeding good corn, insomuch that if men did but cast corn where swine had rooted, it would come up. There is mention made of a breed of wild swine, and the inhabitants had great plenty of fowl and fish. But notwithstanding the fertility of the country, and the many commodities that men had or might have there, it was nevertheless but thinly peopled; and the reason assigned is, because they were liable to be frequently spoiled by French or Spanish pirates.

pirates. In Leland's time, one Mr Davers of Wiltshire, and Mr Whittington of Gloucestershire, were proprietors of Scilly, and drew from thence, in rents and commodities, about 40 merks a year.

The inhabitants at that juncture, and long before, appear to have carried on a small trade in dried skate and other fish to Bretagne, with which they purchased salt, canvas, and other necessaries. This seems to be the remains of a very old kind of commerce, since, for many ages, the people of that country, those of the Scilly isles, and the people of Cornwall, looked upon themselves as countrymen, being in truth no other than remnants of the ancient Britons, who, when driven out by the Saxons, took refuge in those islands, and in that part of France which had before been called *Armorica*, and from hence styled *Bretagne*, *Brittany*, or *Little Britain*, and the people *Bretons*. This, in all probability, was a great relief to those who dwelt in those isles; who, during the long civil war between the houses of York and Lancaster, had their intercourse with England so much interrupted, that if it had not been for this commerce with their neighbours on the French coast, they might have been driven to the last distress.

The Scilly or Silley islands, lie due west from the Lizard about 17 leagues; west and by south from the old Land's End, next Mount's Bay, at the distance of 10 leagues; and from the western Land's End, they lie west-south-west, at the distance of something more than nine leagues. There are five of them inhabited; and that called *Samson* has one family in it. The largest of these is St Mary's which lies in the north latitude of 49 degrees 55 minutes, and in the longitude of 6 degrees 40 minutes west from Greenwich. It is two miles and a half in length, about one and a half in breadth, and between nine and ten miles in compass. On the west side there projects an isthmus. Beyond this there is a peninsula, which is very high; and upon which stands Star Castle, built in 1593, with some outworks and batteries. On these there are upwards of threescore pieces of cannon mounted; and for the defence of which there is a garrison of an entire company, with a master-gunner and six other gunners. In the magazine there are arms for 300 islanders, who, when summoned, are bound to march into the fortress. Underneath the castle barracks and lines stands Hugh Town, very improperly built, as lying so low as to be subject to inundations. A mile within land stands Church Town, so denominated from their place of worship; it consists of a few houses only, with a court house. About two furlongs east of this lies the Old Town, where there are more houses, and some of them very convenient dwellings. The number of inhabitants in this island is about 600 or 700; and it produces to the lord proprietor 300*l.* per annum.

Trescaw lies directly north from St Mary's, at the distance of two miles. It was formerly styled *St Nicholas's island*; and was at least as large as St Mary's, though at present about half the size. The remains of the abbey are yet visible, the situation well chosen, with a fine basin of fresh water before it, half a mile long and a furlong wide, with an ever-green bank high enough to keep out the sea, and serving at once to preserve the pond, and shelter the abbey. In this pond there are most excellent eels, and the lands lying round it are by far the best in those islands. There are about half a score stone houses, with a church, which are called *Dolphin Town*; an old castle built in the reign of Henry VIII. called Oliver's Castle; and a new block-house, raised out of the ruins of that castle, which is of far greater use. This island is particularly noted for producing plenty of the finest samphire, and the only tin works that are now visible are found here. There are upon it at present about 40 families, who are very industrious, and spin more wool than in St Mary's. Its annual value is computed at 80*l.* a year.

A mile to the east of Trescaw, and about two miles from the most northern part of St Mary's, lies the isle of *St Martin's*, not much inferior in size to that of Trescaw. It very plainly appears to have been formerly extremely well cultivated; notwithstanding which it was entirely deserted, till within somewhat less than a century ago, that Mr Thomas Ekines, a considerable merchant, engaged some people to settle there. He likewise caused to be erected a hollow tower twenty feet in height, with a spire of as many feet more; which being neatly covered with lime, serves as a day-mark for directing ships crossing the channel or coming into Scilly. St Martin's produces some corn, affords the best pasture in these islands, nourishes a great number of sheep, and has upon it 17 families, who pretend to have the secret of burning the best kelp, and are extremely attached to their own island. As a proof of this, it is observable, that though some of the inhabitants rent lands in St Mary's, yet they continue to reside here, going thither only occasionally.

St Agnes, which is also called the *Light-house Island*, lies near three miles south-west of St Mary's; and is, though a very little, a very well cultivated island, fruitful in corn and grass. The only inconvenience to which the people who live in it are subject, is the want of good water, as their capital advantage consists in having several good coves or small ports, where boats may lie with safety; which, however, are not much used. The light-house is the principal ornament and great support of the island; it stands on the most elevated ground, and is built with stone from the foundation to the lanthorn, which is fifty-one feet high, the gallery four, the sash-lights eleven feet and a half high, three feet two inches wide, and sixteen in number. The floor of the lanthorn is of brick, upon which stands a substantial iron grate, square, barred on every side, with one great chimney in the canopy-roof, and several lesser ones to let out the smoke, and a large pair of smith's bellows are so fixed as to be easily used whenever there is occasion. Upon the whole, it is a noble and commodious structure; and being plastered white, is a useful day-mark to all ships coming from the southward. The keeper of this light-house has a salary from the Trinity-house at Deptford of 40*l.* a year, with a dwelling-house and ground for a garden. His assistant has 20*l.* a year. It is supplied with coals by an annual ship; and the carriage of these coals from the sea-side to the light-house is looked on as a considerable benefit to the poor inhabitants. They have a neat little church, built by the Godolphin family. There are at present 50 households in the island, which yield the proprietor 10*l.* a year.

Brehar, or, as pronounced, *Bryar island*, lies north-west of St Mary's, and to the west of Trescaw, to which,

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which, when the sea is very low, they sometimes pass over the sand. It is very mountainous, abounds with sea and land fowls, excellent samphire, and a great variety of medicinal herbs. There are at present thirteen families, who have a pretty church, and pay 30*l.* a year to the proprietor.

South from hence, and west from Trescaw, stands the island of *Samson*, in which there is not above one family, who subsist chiefly by the making of kelp. To the westward of these there lie four islands, which contain in the whole 360 acres of meadow and arable land. The *eastern isles*, so denominated from their position in respect to St Mary's, contain 123 acres; and there are also seven other rocky and scattered islands, that have each a little land of some use; and besides these, innumerable rocks on every side, among which we must reckon *Scilly*, now nothing more than a large, ill-shaped, craggy, inaccessible island, lying the farthest north-west of any of them, and consequently the nearest to the continent.

The air of these islands is equally mild and pure; their winters are seldom subject to frost or snow. When the former happens, it lasts not long; and the latter never lies upon the ground. The heat of their summers is much abated by sea-breezes. They are indeed frequently incommoded by sea fogs, but these are not unwholesome. Agues are rare, and fevers more so. The most fatal distemper is the small-pox; yet those who live temperately survive commonly to a great age, and are remarkably free from diseases. The soil is very good, and produces grain of all sorts (except wheat, of which they had anciently plenty) in large quantities. They still grow a little wheat, but the bread made of it is unpleasant. They eat, for this reason, chiefly what is made of barley; and of this they have such abundance, that though they use it both for bread and beer, they have more than suffices for their own consumption. The introduction of potatoes was an essential improvement; the cultivation of this plant succeeded so well, as to yield every season the most luxuriant crops. Roots of all sorts, pulse, and salads, grow well; dwarf fruit-trees, gooseberries, currants, raspberries, and every thing of that kind, under proper shelter, thrive exceedingly; but they have no trees, though formerly they had elder; and Porthelik, i. e. the harbour of willows, proves they had these likewise; and with a little care, no doubt, great improvements might be made. The ranunculus, anemone, and most kinds of flowers, are successfully cultivated in their gardens. They have wild fowl of all sorts, from the swan to the snipe; and a particular kind called the *hedge chicken*, which is not inferior to the ortolan: also tame fowl, puffins, and rabbits, in great numbers. Their black cattle are generally small, but very well tasted, though they feed upon ore-weed. Their horses are little, but strong and lively. They have also large flocks of fine sheep, whose fleeces are tolerably good and their flesh excellent. There are no venomous creatures in these islands.

We must now pass to the sea, which is of more consequence to these isles than that small portion of land which is distributed amongst them. St Mary's harbour is very safe and capacious, having that island on the south; the eastern islands, with that of St Martin, on the east; Trescaw, Brehar, and Samson, to the north; St Agnes and several small islands to the west. Ships ride here in three to five fathom water, with good anchorage. Into this harbour there are four inlets, viz. Broad Sound, Smith's Sound, St Mary's Sound, and Crow Sound: so that hardly any wind can blow with which a ship of 150 tons cannot safely sail through one or other of them, Crow Sound only excepted, where they cannot pass at low water, but at high water there is from 16 to 24 feet in this passage. Besides these there are two other harbours; one called *New Grynsey*, which lies between Brehar and Trescaw, where ships of 300 tons may ride securely. The other is called *Old Grynsey*, and lies between Trescaw, St Helen's, and Theon, for smaller ships. The former is guarded by the batteries at Oliver's Castle; the latter by the Blockhouse, on the eastern side of Trescaw, called *Dover*. Small coasters bound to the northward have more convenient outlets from these little harbours than from St Mary's, where, at the west end of Hugh Town, there is a fine pier built by the earl of Godolphin, 430 feet long, 20 feet wide in the narrowest part, and 23 feet in height, with 16 feet of water at a spring, and 10 at a neap tide; so that under the shelter of this pier, vessels of 150 tons may lie securely, not only close to the quay, but all along the strand of the town.

In this harbour, and in all the little coves of the several isles, prodigious quantities of mackerel may be caught in their season; also soal, turbot, and plaice, remarkably good in their kind; and ling, which from its being a thicker fish, mellower, and better fed, is very justly preferred to any caught nearer our own coasts. Salmon, cod, pollock, are in great plenty, and pilchards in vast abundance. To these we may add the alga marina, fucus, or ore-weed, which serves to feed both their small and great cattle, manures their lands, is burned into kelp, is of use in physic, is sometimes preserved, sometimes pickled, and is in many other respects very beneficial to the inhabitants, of whom we are next to speak.

The people of Scilly in general are robust, handsome, active, hardy, industrious, generous, and good-natured; speak the English language with great propriety; have strong natural parts (though for want of a good school they have little education), as appears by their dexterity in the several employments to which they are bred. They cultivate most of their lands as well as can be expected under their present circumstances. They are bred from their infancy to the management of their boats, in which they excel; are good fishermen, and excellent pilots. Their women are admirable housewives, spin their own wool, weave it into coarse cloth, and knit stockings. They have no timber of their own growth, and not much from England; yet they have many joiners and cabinet-makers, who, out of the fine woods which they obtain from captains of ships who put in here, make all kinds of domestic furniture in a very neat manner. They are free from the land-tax, malt-tax, and excise; and being furnished with plenty of liquors from the vessels which are driven into their roads for refreshment, for necessary repairs, or to wait for a fair wind, in return for provisions and other conveniences; this, with what little fish they can cure, makes the best part of their trade, if we except their

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their kelp, which has been a growing manufacture for these fourscore years, and produces at present about 500*l.* per annum.

The right honourable the earl of Godolphin is styled proprietor of Scilly, in virtue of letters-patent granted to the late earl, then Lord Godolphin, dated the 25th of July 1698, for the term of 89 years, to be computed from the end and expiration of a term of 50 years, granted to Francis Godolphin, Esq. by King Charles I., that is, from the year 1709 to 1798, when his lease determines. In virtue of this royal grant, his lordship is the sole owner of all lands, houses, and tenements; claims all the tithes, not only of the fruits of the earth, but of fish taken at sea and landed upon those premises; harbour-duties paid by ships, and one moiety of the wrecks, the other belonging to the admiralty. There is only one ecclesiastical person upon the islands, who resides at St Mary's, and visits the other inhabited islands once a year. But divine service is performed, and sermons read, every Sunday in the churches of those islands, by an honest layman appointed for that purpose; and there are likewise church-wardens and overseers, regularly chosen in every parish. As to the civil government, it is administered by what is called the *Court of Twelve;* in which the commander in chief, the proprietor's agent, and the chaplain, have their seats in virtue of their offices: the other nine are chosen by the people. These decide, or rather compromise, all differences; and punish small offences by fines, whippings, and the ducking-stool: as to greater enormities, we may conclude they have not been hitherto known; since, except for the soldiers, there is no prison in the islands. But in case of capital offences, the criminals may be transported to the county of Cornwall, and there brought to justice.

The great importance of these islands arises from their advantageous situation, as looking equally into St George's channel, which divides Great Britain from Ireland, and the English channel, which separates Britain from France. For this reason, most ships bound from the southward strive to make the Scilly islands, in order to steer their course with greater certainty. It is very convenient also for vessels to take shelter amongst them; which prevents their being driven to Milford Haven, nay sometimes into some port in Ireland, if the wind is strong at east; or, if it blow hard at north-west, from being forced back into some of the Cornish harbours, or even on the French coasts. If the wind should not be very high, yet if unfavourable or unsteady, as between the channels often happens, it is better to put into Scilly, than to beat about at sea in bad weather. The intercourse between these two channels is another motive why ships come in here, as choosing rather to wait in safety for a wind, than to run the hazard of being blown out of their course; and therefore a strong gale at east seldom fails of bringing 30 or 40 vessels, and frequently a larger number, into Scilly; not more to their own satisfaction than to that of the inhabitants. Ships homeward-bound from America often touch there, from the desire of making the first land in their power, and for the sake of refreshment. These reasons have an influence on foreign ships, as well as our own; and afford the natives an opportunity of showing their wonderful dexterity in conducting them safely into St Mary's harbour, and, when the wind serves, through their sounds. Upon firing a gun and making a waft, a boat immediately puts off from the nearest island, with several pilots on board; and having with amazing activity dropped one of them into every ship, till only two men are left in the boat, these return again to land, as the wind and other circumstances direct, in one of their little coves.

Respecting a current which often prevails to the westward of Scilly, Mr Rennel has published some observations of much importance. "It is a circumstance (says he) well known to seamen, that ships, in coming from the Atlantic, and steering a course for the British channel, in a parallel somewhat to the south of the Scilly islands, do notwithstanding often find themselves to the north of those islands; or, in other words, in the mouth of St George's or of the Bristol channel. This extraordinary error has passed for the effects either of bad steerage, bad observations of latitude, or the indraught of the Bristol channel: but none of these account for it satisfactorily; because, admitting that at times there may be an indraught, it cannot be supposed to extend to Scilly; and the case has happened in weather the most favourable for navigating and for taking observations. The consequences of this deviation from the intended tract have very often been fatal; particularly in the loss of the Nancy packet in our own times, and that of Sir Cloudesley Shovel and others of his fleet at the beginning of the present century. Numbers of cases, equally melancholy, but of less celebrity, have occured; and many others, in which the danger has been imminent, but not fatal, have scarcely reached the public ear. All of these have been referred to accident; and therefore no attempt seems to have been made to investigate the cause of them.

"I am, however, of opinion, that they may be imputed to a specific cause; namely, a current; and I shall therefore endeavour to investigate both that and its effects, that seamen may be apprized of the times when they are particularly to expect it in any considerable degree of strength; for then only it is likely to occasion mischief, the current that prevails at ordinary times being probably too weak to produce an error in the reckoning, equal to the difference of parallel between the south part of Scilly and the tract in which a commander, prudent in his measures, but unsuspicious of a current, would choose to sail."

The original cause of this current is the prevalence of westerly winds in the Atlantic, which impel the waters along the north coast of Spain, and accumulate them in the bay of Biscay; whence they are projected along the coast of France, in a direction north-west by west to the west of Scilly and Ireland. The Major assigns strong reasons for the existence of this current between Ushant and Ireland, in a chart of the tracks of the Hector and Atlas, East India ships, in 1778 and 1787. The following remarks on the effect of this current are abridged from the author's work, which is well worthy the perusal of all sailors and shipmasters.

1st, If a ship crosses it obliquely, that is, in an east by south or more southerly direction, she will continue much longer in it, and of course be more affected by it, than if she crossed it more directly. The same consequence will happen if she crosses it with light winds. 2dly, A good observation of latitude at noon would be thought a sufficient warrant for running eastward during

ing a long night; yet, as it may be possible to remain in the current long enough to be carried from a parallel, which may be deemed a very safe one, to that of the rocks of Scilly, it would appear prudent, after experiencing a continuance of strong westerly winds in the Atlantic, and approaching the Channel with light southerly winds, either to make Ushant in time of peace, or at all events to keep in the parallel of 48° 45′ at the highest. 3dly, Ships, bound to the westward, from the mouth of the Channel, with the wind in the south-west quarter, should prefer the larboard tack. 4thly, Major Rennel approves the design of removing the light-house of Scilly (if it be not already removed) to the south-west part of the high rocks. 5thly, He recommends the sending a vessel, with time-keepers on board, to examine the soundings between the parallels of Scilly and Ushant; from the meridian of the Lizard Point as far west as the moderate depths extend. A set of time-keepers, he observes, will effect more in one summer, in skilful hands, than all the science of Dr Halley could do in the course of a long life.

In time of war, the importance of these islands is still more conspicuous; and it is highly probable, that they afforded the allies a place for assembling their fleet, when the Britons, Danes, Scots, and Irish, sailed under the command of Anlaff, to attack King Athelstan; which convinced him of the necessity of adding them to his dominions. Upon the like principle, Henry VIII., when upon bad terms with his neighbours, caused an old fortress to be repaired, and Queen Elizabeth, who had more to fear, directed the construction of a castle, which, in part at least, still remains. But the most singular instance of the detriment that might arise from these islands falling into other hands than our own, happened in 1651, when Sir John Grenville took shelter in them with the remains of the Cornish cavaliers. For the depredations committed by his frigates soon made it evident that Scilly was the key of the English commerce; and the clamours of the merchants thereupon rose so high, that the parliament were forced to send a fleet of fifty sail, with a great body of land forces on board, under Sir George Ayscue and Admiral Blake, who with great difficulty, and no inconsiderable loss, made themselves masters of Tresca and Brehar; where they erected those lines and fortifications near the remains of the old fortress that are called *Oliver's Castle*. But at length, finding that little was to be done in that way, they chose to grant Sir John Grenville a most honourable capitulation, as the surest means to recover places of such consequence; with which the parliament were very little satisfied, till Mr Blake gave them his reason; which appeared to be so well founded, that they directed the articles he had concluded to be punctually carried into execution.

SCIO, or Chio, a celebrated island of the Archipelago (see Chio). It is 32 miles long and 15 broad, and is a mountainous but very pleasant country. The principal mountain, called anciently *Pelinæus*, presents to view a long lofty range of bare rock, reflecting the sun; but the recesses at its feet are diligently cultivated, and reward the husbandman by their rich produce. The slopes are clothed with vines. The groves of lemon, orange, and citron trees, regularly planted, at once perfume the air with the odour of their blossoms, and delight the eye with their golden fruit. Myrtles and jasmine are interspersed, with olive and palm trees, and cypresses. Amid these the tall minarets rise, and white houses glitter, dazzling the beholder. The inhabitants export a large quantity of pleasant wine to the neighbouring islands, but their principal trade is in silks. They have also a small commerce in wool, cheese, figs, and mastich. The women are better bred than in other parts of the Levant; and though the dress is odd, yet it is very neat. The partridges are tame, being sent every day into the fields to get their living, and in the evening are called back with a whistle. The town called *Scio* is large, pleasant, and the best built of any in the Levant, the houses being beautiful and commodious, some of which are terraced, and others covered with tiles. The streets are paved with flint-stones; and the Venetians, while they had it in their possession, made a great many alterations for the better. The castle is an old citadel built by the Genoese, in which the Turks have a garrison of 1400 men. The harbour of Scio is the rendezvous of all shipping that goes to or comes from Constantinople, and will hold a fleet of fourscore vessels. They reckon there are 10,000 Turks, 100,000 Greeks, and 10,000 Latins, on this island. The Turks took it from the Venetians in 1695. Scio is a bishops's see, and is seated on the sea-side, 47 miles west of Smyrna, and 210 south-west of Constantinople.

There are but few remains of antiquity in this place. "The most curious of them (says Dr Chandler) is that which has been named without reason the *School of Homer*. It is on the coast at some distance from the city northward, and appears to have been an open temple of Cybele, formed on the top of a rock. The shape is oval, and in the centre is the image of the goddess, the head and an arm wanting. She is represented, as usual, sitting. The chair has a lion carved on each side, and on the back. The area is bounded by a low rim or seat, and about five yards over. The whole is hewn out of the mountain, is rude, indistinct, and probably of the most remote antiquity. From the slope higher up is a fine view of the rich vale of Scio, and of the channel, with its shining islands, beyond which are the mountains on the mainland of Asia."

SCIOPPIUS, Gaspar, a learned German writer of the 17th century, was born at Neumark in the Upper Palatinate on the 27th of May 1576. He studied at the university with so much success, that at the age of 16 he became an author; and published books, says Ferrari, which deserve to be admired by old men. His dispositions did not correspond with his genius. Naturally passionate and malevolent, he assaulted without mercy the characters of eminent men. He abjured the system of the Protestants, and became a Roman Catholic about the year 1599; but his character remained the same. He possessed all those qualities which fitted him for making a distinguished figure in the literary world; imagination, memory, profound learning, and invincible impudence. He was familiar with the terms of reproach in most of the languages. He was entirely ignorant of the manners of the world. He neither showed respect to his superiors, nor did he behave with decency to his equals. He was possessed with a frenzy of an uncommon kind: he was indeed a perfect firebrand, scattering around him, as if for his amusement, the most atrocious calumnies. Joseph Scaliger, above all

all others, was the object of his satire. That learned man having drawn up the history of his own family, and deduced its genealogy from princes, was severely attacked by Scioppius, who ridiculed his high pretension. Scaliger in his turn wrote a book entitled The Life and Parentage of Gaspar Scioppius, in which he informs us, that the father of Scioppius had been successively a grave-digger, a journeyman stationer, a hawker, a soldier, a miller, and a brewer of beer. We are told that his wife was long kept as a mistress, and at length forsaken by a debauched man whom she followed to Hungary, and obliged to return to her husband; that then he treated her harshly, and condemned her to the lowest offices of servitude. His daughter, too, it is said, was as disorderly as her mother: that after the flight of her husband, who was going to be burned for some infamous crimes, she became a common prostitute; and at length grew so scandalous, that she was committed to prison. These severe accusations against the family of Scioppius inflamed him with more eagerness to attack his antagonist anew. He collected all the calumnies that had been thrown out against Scaliger, and formed them into a huge volume, as if he had intended to crush him at once. He treated with great contempt the king of England, James I., in his *Ecclesiasticus*, &c. and in his *Collyrium Regium Britanniæ Regi graviter ex oculis laboranti munere missum;* that is, "An Eye-salve for his Britannic Majesty." In one of his works he had the audacity to abuse Henry IV. of France in a most scurrilous manner, on which account his book was burned at Paris. He was hung in effigy in a farce which was represented before the king of England, but he gloried in his dishonour. Provoked with his insolence to their sovereign, the servants of the English ambassador assaulted him at Madrid, and corrected him severely: but he boasted of the wounds he had received. He published more than thirty defamatory libels against the Jesuits; and, what is very surprising, in the very place where he declaims with most virulence against that society, he subscribes his own name with expressions of piety. *I Gasper Scioppius, already on the brink of the grave, and ready to appear before the tribunal of Jesus Christ, to give an account of my works.* Towards the end of his life he employed himself in studying the Apocalypse, and affirmed that he had found the key to that mysterious book. He sent some of his expositions to Cardinal Mazarine; but the cardinal did not find it convenient to read them.

Ferrari tells us, that during the last fourteen years of his life, he shut himself up in a small apartment, where he devoted himself solely to study. The same writer acquaints us, that he could repeat the Scriptures almost entirely by heart; but his good qualities were eclipsed by his vices. For his love of slander, and the furious assaults which he made upon the most eminent men, he was called the *Cerberus of literature*. He accuses even Cicero of barbarisms and improprieties. He died on the 19th November 1649, at the age of 74, at Padua, the only retreat which remained to him from the multitude of enemies whom he had created. Four hundred books are ascribed to him, which are said to discover great genius and learning. The chief of these are, 1. *Verisimilium Libri* iv. 1596, in 8vo. 2. *Commentarius de arte critica*, 1661, in 8vo. 3. *De sua ad Catholicos migratione*, 1660, in 8vo. 4. *Notationes Criticæ in Phædrum, in Priapeia, Patavii*, 1664, in 8vo. 5. *Suspectarum lectionum Libri* v. 1664, in 8vo. 6. *Classicum belli sacri*, 1619, in 4to. 7. *Collyrium regium*, 1611, in 8vo. 8. *Grammatica Philosophica*, 1644, in 8vo. 9. *Relatio ad Reges et Principes de Stratagematibus Societatis Jesu*, 1641, in 12mo. This last mentioned was published under the name of *Alphonso de Vargas*. He was at first well disposed to the Jesuits; but these fathers on one occasion opposed him. He presented a petition to the diet of Ratisbon in 1630, in order to obtain a pension; but the Jesuits, who were the confessors both of the emperor and the electors, had influence to prevent the petition from being granted. From that moment Scioppius turned his whole artillery against the Jesuits.

SCIOPTIC, or SCIOPTRIC BALL, a sphere or globe of wood, with a circular perforation, where a lens is placed. It is so fitted, that, like the eye of an animal, it may be turned round every way, to be used in making experiments of the darkened room.

SCIPIO, PUBLIUS CORNELIUS, a renowned Roman general, surnamed *Africanus*, for his conquests in that country. His other signal military exploits were, his taking the city of New Carthage in a single day; his complete victory over Hannibal, the famous Carthaginian general; the defeat of Syphax king of Numidia, and of Antiochus in Asia. He was as eminent for his chastity, and his generous behaviour to his prisoners, as for his valour. He died 180 B. C. aged about 51.

SCIPIO, *Lucius Cornelius*, his brother, surnamed *Asiaticus*, for his complete victory over Antiochus at the battle of Magnesia, in which Antiochus lost 50,000 infantry and 4000 cavalry. A triumph, and the surname of *Asiaticus*, were the rewards of his valour. Yet his ungrateful countrymen accused him, as well as his brother, of peculation; for which he was fined: but the public sale of his effects proved the falsehood of the charge; for they did not produce the amount of the fine. He flourished about 190 B. C.

SCIPIO, *Publius Emilianus*, was the son of Paulus Emilius; but being adopted by Scipio Africanus, he was called *Scipio Africanus junior*. He showed himself worthy of adoption, following the footsteps of Scipio Africanus, whom he equalled in military fame and public virtues. His chief victories were the conquest of Carthage and Numantia; yet these signal services to his country could not protect him from an untimely fate. He was strangled in his bed by order of the Decemviri, who dreaded his popularity, 129 B. C. aged 56.

SCIRO, an island of the Archipelago, to the west of Mytilene, to the north-east of Negropont, and to the south-east of Sciati. It is 15 miles in length, and eight in breadth. It is a mountainous country, but has no mines. The vines make the beauty of the island, and wine is excellent; nor do the natives want wood. There is but one village; and that is built on a rock, which rises up like a sugar-loaf, and is 10 miles from the harbour of St George. The inhabitants are all Greeks, the cadi being the only Turk among them.

SCIROCHO, or SIROCCO, a name generally given in Italy to every unfavourable wind. In the south-west it is applied to the hot suffocating blasts from Africa; and in the north-east it means the cold bleak winds from the Alps.

SCIRPUS,

SCIRPUS, a genus of plants belonging to the triandria class; and in the natural method ranking under the third order, *Calamariæ*. See BOTANY *Index*.

SCIRRHUS, in *Surgery* and *Medicine*, a hard tumor of any part of the body, void of pain, arising, as is supposed, from the inspissation and induration of the fluids contained in a gland, though it may also appear in any other part of the body, especially in the fat; being one of the ways in which an inflammation terminates. These tumours are exceedingly apt to degenerate into cancers.

SCITAMINEÆ, one of the natural orders of plants. See BOTANY *Index*.

SCIURUS, the SQUIRREL; a genus of quadrupeds belonging to the order of glires. See MAMMALIA *Index*.

SCIURUS, a genus of plants belonging to the diandria class; and in the natural method ranking with those that are doubtful. See BOTANY *Index*.

SCLAVONIA, a country of Europe between the rivers Save, the Drave, and the Danube. It is divided into six counties, and belongs to the house of Austria. It was formerly called a *kingdom*; and is very narrow, not being above 75 miles in breadth; but it is 300 in length, from the frontiers of Austria to Belgrade. It contains about 7500 square miles, and in 1813 had 528,200 inhabitants. The eastern part is called *Ratzia*, and the inhabitants *Ratzians*. These are of the Greek church. The language of Selavonia is the mother of four others, namely, those of Hungary, Bohemia, Poland, and Russia.

SCLERANTHUS, a genus of plants belonging to the dodecandria class; and in the natural method ranking under the 22d order, *Caryophylleæ*. See BOTANY *Index*.

SCLERIA, a genus of plants belonging to the monœcia class; and in the natural method ranking under the 4th order, *Gramina*. See BOTANY *Index*.

SCLEROTICS, medicines which are supposed to have the property of hardening and consolidating the flesh of the parts to which they are applied; as purslain, house-leek, flea-wort, garden nightshade, &c.

SCOLOPAX, a genus of birds belonging to the order of grallæ. See ORNITHOLOGY *Index*.

SCOLOPENDRA, a genus of insects belonging to the order of aptera. See ENTOMOLOGY *Index*.

SCOLYMUS, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See BOTANY *Index*.

SCOMBER, the MACKEREL, a genus of fishes belonging to the order of thoracici. See ICHTHYOLOGY *Index*.

SCONCES, small forts, built for the defence of some pass, river, or other place. Some sconces are made regular, of four, five, or six bastions; others are of smaller dimensions, fit for passes or rivers; and others for the field.

SCONE, a village of Scotland, now chiefly remarkable for being the place where the kings were anciently crowned. W. Long. 3. 10. N. Lat. 56. 28. Here was once an abbey of great antiquity, which was burnt by the reformers at Dundee. Kenneth II. upon his conquest of the Picts in the ninth century, having made Scone his principal residence, delivered his laws, called the *Macalpine laws*, from a *tumulus*, named the *Mote Hill of Scone*. The old palace was begun by the earl of Gowrie; but was completed by Sir David Murray of Gospatric, the favourite of King James VI, to whom that monarch had granted it; and the new possessor, in gratitude to his benefactor, put up the king's arms in several parts of the house. It was built around two courts. The dining room was large and handsome; and had an ancient and magnificent chimney-piece, and the king's arms, with this motto:

Nobis hæc invicta miserunt centum sex proavi.

Beneath were the Murray arms. In the drawing room was some good old tapestry, with an excellent figure of Mercury. In a small bed-chamber was a medley scripture-piece in needle-work, with a border of animals, said to be the work of Queen Mary during her confinement in Loch Leven castle. The gallery was about 155 feet long, the top arched, divided into compartments filled with paintings in water-colours. The pieces represented were various kinds of huntings; that of Nimrod, and King James and his train, appear in every piece. But the whole of this building we believe has been demolished, and a most magnificent pile erected in its place by the earl of Mansfield, who is hereditary keeper. Till the destruction of the abbey, the kings of Scotland were crowned here, sitting in the famous wooden chair which Edward I. transported to Westminster abbey, to the great mortification of the Scots, who looked upon it as a kind of palladium. Charles II. before the battle of Worcester, was crowned in the chapel at Scone. The old pretender resided for some time at Scone in 1715; and his son paid it a visit in 1745.

SCOPARIA, a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 40th order, *Personatæ*. See BOTANY *Index*.

SCOPER or SCUPPER HOLES, in a ship, are holes made through the sides, close to the deck, to carry off the water that comes from the pumps.

SCOPOLIA, a genus of plants belonging to the gynandria class; and in the natural method ranking under the 11th class, *Sarmentaceæ*. See BOTANY *Index*.

SCORBUTUS, the SCURVY. See MEDICINE, N° 8.

SCORDIUM, or WATER-GERMANDER. See TEUCRIUM, BOTANY *Index*.

SCORIA, or DROSS, among metallurgists, is the recrement of metals in fusion; or, more determinately speaking, is that mass which is produced by melting metals and ores: when cold, it is brittle, and not dissoluble in water, being properly a kind of glass.

SCORIFICATION, in *Metallurgy*, is the art of reducing a body, either entirely or in part, into scoria.

SCORPÆNA, a genus of fishes belonging to the order thoracici. See ICHTHYOLOGY *Index*.

SCORPIO, a genus of insects belonging to the order of aptera. See ENTYMOLOGY *Index*.

SCORPIO, *Scorpion*, in *Astronomy*, the eighth sign of the zodiac, denoted by the character ♏. See ASTRONOMY.

SCORPION-Fly. See PANORPA, ENTOMOLOGY *Index*.

SCORPIURUS, CATERPILLARS, a genus of plants belonging to the diadelphia class; and in the natural method ranking under the 32d order, *Papilionaceæ*. See BOTANY *Index*.

SCORZONERA,

Scorzonera || Scotales.

SCORZONERA, Viper-grass, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

SCOT, a customary contribution laid upon all subjects, according to their abilities. Whoever were assessed in any sum, though not in equal proportions, were said to pay scot and lot.

Scot, *Michael*, of Balwirie, a learned Scottish author of the 13th century. This singular man made the tour of France and Germany; and was received with some distinction at the court of the emperor Frederic II. Having travelled enough to gratify his curiosity or his vanity, he returned to Scotland, and gave himself up to study and contemplation. He was skilled in languages; and, considering the age in which he lived, was no mean proficient in philosophy, mathematics, and medicine. He translated into Latin, from the Arabic, the history of animals by the celebrated physician Avicenna. He published the whole works of Aristotle, with notes; and affected much to reason on the principles of that great philosopher. He wrote a book concerning *The Secrets of Nature*, in which he treats of generation, physiognomy, and the signs by which we judge of the temperaments of men and women. We have also a tract of his *On the Nature of the Sun and Moon*. He there speaks of the *grand operation*, as it is termed by alchymists, and is exceedingly solicitous about the *projected powder*, or the *philosopher's stone*. He likewise published what he calls *Mensa Philosophica*, a treatise replete with astrology and chiromancy. He was much admired in his day, and was even suspected of magic; and had Roger Bacon and Cornelius Agrippa for his panegyrists.

Scot, *Reginald*, a judicious writer in the 16th century, was the younger son of Sir John Scot of Scotshall, near Smeethe in Kent. He studied at Hart-Hall in the University of Oxford; after which he retired to Smeethe, where he lived a studious life, and died in 1599. He published, *The perfect Platform of a Hop-Garden*; and a book entitled, *The Discovery of Witchcraft*; in which he showed that all the relations concerning magicians and witches are chimerical. This work was not only censured by King James I. in his *Dæmonology*, but by several eminent divines; and all the copies of it that could be found were burnt.

SCOTAL, or Scotale, is where any officer of a forest keeps an ale-house within the forest, by colour of his office, making people come to his house, and there spend their money for fear of his displeasure. We find it mentioned in the charter of the forest, cap. 8. "Nullus forestarius, faciat *Scotallas*, vel garbas colligat, vel aliquam collectam faciat," &c. *Manwood*, 216.—The word is compounded of *scot* and *ale*, and by transposition of the words is otherwise called *aleshot*.

SCOTALES, were meetings formerly held in England for the purpose of drinking ale, of which the expense was paid by joint contribution. Thus the tenants of South Malling in Sussex, which belonged to the archbishop of Canterbury, were, at the keeping of a court, to entertain the lord or his bailiff with a drinking, or an *ale*; and the stated quotas towards the charge were, that a man should pay threepence halfpenny for himself and his wife, and a widow and cottager a penny halfpenny. In the manor of Ferring, in the same county, and under the same jurisdiction, it was the custom for the tenants named to make a *scotale* of sixteen pence halfpenny, and to allow out of each sixpence a penny halfpenny for the bailiff.

Scotales || Nova Scotia.

Common scotales in taverns, at which the clergy were not to be present, are noticed in several ecclesiastical canons. They were not to be published in the church by the clergy or the laity; and a meeting of more than ten persons of the same parish or vicinage was a scotale that was generally prohibited. There were also common drinkings, which were denominated *leet-ale*, *bride-ale*, *clerk-ale*, *church-ale*. To a *leet-ale* probably all the residents in a manorial district were contributors; and the expense of a *bride-ale* was defrayed by the relations and friends of a happy pair, who were not in circumstances to bear the charges of a wedding dinner. This custom prevails occasionally in some districts of Scotland even at this day, under the denomination of a *penny bride-ale*, and was very common about half a century ago. The *clerk's*-ale was in the Easter holidays, and was the method taken to enable clerks of parishes to collect their dues more readily.

Mr Warton, in his history of English poetry, has inserted the following extract from an old indenture, which clearly shows the design of a *church*-ale. "The parishioners of Elveston and Okebrook, in Derbyshire, agree jointly to brew four ales, and every ale of one quarter of malt, betwixt this and the feast of St John the Baptist next coming; and that every inhabitant of the said town of Okebrook shall be at the several ales. Every husband and his wife shall pay twopence, every cottager one penny; and all the inhabitants of Elveston shall have and receive all the profits and advantages coming of the said ales, *to the use and behoof of the said church of Elveston*."

The *give-ales* were the legacies of individuals, and from that circumstance entirely gratuitous. They seem to have been very numerous, and were generally left to the poor; though, from the largeness of the quantity of ale enjoined to be brewed, it must have been sometimes intended that others were to partake of them. These bequests were likewise made to the altar of a saint, with directions for singing masses at the obit, or anniversary of the testator. The give-ales were sometimes dispensed in the church, and frequently in the church-yard, by which means Godde's house was made a tavern of gluttons. Such certainly would be Chalk-church, if in it was kept the give-ale of William May of that parish; for he ordered his wife "to make in bread six bushels of wheat, and in drink 10 bushels of malt, and in cheese 20d. to give to poor people, for the health of his soull; and he ordered that, after the decease of his wife, his executors and feoffees should continue the custom for evermore."

SCOTER. See Anas, Ornithology *Index*.

Nova SCOTIA, or *New Scotland*, one of the British settlements in North America, situated between 43° and 49° north latitude, and between 60° and 67° west longitude, is bounded by the river St Laurence on the north; by the gulf of St Laurence and the Atlantic ocean on the east; by the same ocean on the south; and by Canada and New England on the west.—In the year 1784, this province was divided into two governments. The province and government now styled *New Brunswick*, is bounded on the westward of the mouth of the river St Croix, by the said river to its source, and by

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by a line drawn due north from thence to the southern boundary of the province of Quebec; to the northward by the said boundary as far as the western extremity of the bay De Chaleurs; to the eastward by the said bay to the gulf of St Laurence to the bay called *Bay Verte;* to the south by a line in the centre of the bay of Fundy, from the river St Croix aforesaid, to the mouth of the Musquat river, by the said river to its source; and from thence by a due east line across the isthmus into the Bay Verte, to join the eastern lot above described, including all islands within six leagues of the coast.

The chief rivers are, the river of St Laurence, which forms the northern boundary. The rivers Risgouche and Nipisiguit run from west to east, and fall into the bay of St Laurence. The rivers of St John, Passamagandi, Penobscot, and St Croix, which run from north to south, fall into Fundy bay, or the sea a little to the eastward of it.

The seas adjoining to it are, the Atlantic ocean, Fundy bay, and the gulf of St Laurence. The lesser bays are, Chenigto and Green Bay upon the isthmus which joins the north part of Nova Scotia to the south; and the bay of Chaleurs on the north-east; the bay of Chedibucto on the south-east; the bay of the Islands; the ports of Bart, Chebucto, Prosper, St Margaret, La Heve, Port Maltois, Port Rysignal, Port Vert, and Port Joly, on the south; Port La Tour on the south-east; Port St Mary, Annapolis, and Minas on the south side of Fundy bay, and Port Roseway, now the most populous of all.—The chief capes are, Cape Portage, Ecoumenac, Tourmentin, Cape Port, and Epis, on the east; Cape Fogerie and Cape Canceau on the south-east; Cape Blanco, Cape Vert, Cape Theodore, Cape Dore, Cape La Heve, and Cape Negro, on the south; Cape Sable and Cape Fourche on the south-west.—The lakes are very numerous, but have not yet received particular names.

The face of the country, when viewed at a distance, presents a pleasingly variegated appearance of hills and valleys, with scarcely any thing like mountains to interrupt the prospect, especially near the sea. A nearer approach discovers those sublime and beautiful scenes which are so far superior to the gaudy embellishments of art. Immense forests, formed of the tallest trees, the growth of ages, and reaching almost to the clouds, everywhere cover and adorn the land: their leaves falling in autumn, add continually to that crust of moss, vegetables, and decaying wood, that has for many centuries been accumulating; whilst the rays of the sun, unable to pierce the thick shade which everywhere covers the ground, leaves it in a perpetual state of damp and rottenness; a circumstance which contributes in no small degree, to increase the sharpness of the air in winter.

The clouds, flying over the high grounds, which are covered in every direction with one vast forest, and arrested by the attraction of the woods, fill the country with water. Every rock has a spring, and every spring causes a swamp or morass, of greater or less extent in proportion to its cause: hence it is, that travelling becomes almost impracticable in summer, and is seldom attempted, but in the fall of the year, when winter begins to set in, and the ground is already frozen.

The land throughout the peninsula is in no part mountainous, but frequently rises into hills of gradual ascent, everywhere clothed with wood. From these arise innumerable springs and rivulets, which not only fertilize and adorn the country, but have formed, in the midst of it, a large lake or piece of fresh water, which is of various depths, and of which, however, little more is known, than that it has upon its borders very large tracts of meadow-land highly improveable. That part of the province which is beyond the bay of Fundy, and extends to the river of St Laurence, rises also gradually as we advance from the sea quite to Canada; but is, however, hardly anywhere mountainous. Its lands are for the most part very rich, particularly at a distance from the sea; and its woods abound with the hardest and loftiest trees.

Though this country, like Canada, is subject to long and severe winters, succeeded by sudden and violent heats, often much greater than what are felt in the same latitudes in Europe, yet it cannot be accounted an unhealthy climate. The air in general in winter is very sharp, frosty, and dry; the sky serene and unclouded, by which every kind of exercise adapted to the season is rendered pleasant and agreeable. The fogs are frequent near the sea, but seldom spread themselves to any distance inland.

The winter commonly breaks up with heavy rains, and the inhabitants experience hardly any of the delights of the spring, which in England is accounted the most agreeable season of the year. From a lifeless and dreary appearance, and the gloomy scenes of winter wrapped around the vegetable world, the country throws off its forbidding attire, and in a few days exhibits a grand and pleasant prospect: the vegetation being inconceivably rapid, nature passes suddenly from one extreme to another, in a manner utterly unknown to countries accustomed to a gradual progression of seasons. And, strange as it appears, it is an acknowledged fact, a fact which furnishes a certain proof of the purity of the air, that these sudden changes seldom, if ever, affect the health of strangers or Europeans.

In this country agriculture has yet made but small progress. Nova Scotia is almost a continued forest, producing every kind of wood which grows in the neighbouring provinces of New England. Four-fifths of all the lands in the province are covered with pines, which are valuable not only for furnishing masts, spars, lumber for the sugar plantations, and timber for building, but for yielding tar, pitch, and turpentine, commodities which are all procured from this useful tree, and with which the mother country may in a few years easily be supplied.

The various species of birch, beech, and maple, and several sorts of spruce, are found in all parts in great abundance; as also numerous herbs and plants, either not common to, or not known in, England. Amongst these none is more plentiful than sarsaparilla, and a plant whose root resembles rhubarb in colour, taste, and effects; likewise the Indian or mountain tea, and maiden hair, an herb much in repute for the same purpose, with shrubs producing strawberries, raspberries, and many other pleasant fruits, with which the woods in summer are well stored: Of these wild productions the cherries are best, though smaller than ours, and growing in bunches somewhat resembling grapes. The sassafras tree grows plentifully in common with others; but amongst them none is more useful to the inhabitants than a species of maple, distinguished by the name of the

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the *sugar tree*, as affording a considerable quantity of that valuable ingredient. See SUGAR.

Amongst the natural productions of Novia Scotia, it is necessary to enumerate their iron-ore, which is supposed equally good with that found in any part of America.

Limestone is likewise found in many places; it is extremely good, and is now much used for building: independent of which, it gives the farmers and landholders a great advantage for improving the ground, as it is found by experience to be one of the most approved things in the world for that purpose.

Several of the useful and most common European fruits have been planted in many places; so that the province now produces great quantities of apples, some pears, and a few plums, which are all good of their kinds, especially the former. The smaller fruits, such as currants, gooseberries, &c. grow to as great perfection as in Europe; and the same may be said of all the common and useful kinds of garden plants. Among these their potatoes have the preference, as being the most serviceable in a country abounding with fish; and indeed they are not to be exceeded in goodness by any in the world. The maize, or Indian corn, is a native of much warmer climates; and, though planted here, never arrives at more than two-thirds of its natural bigness; a defect which arises as well from the shortness of the summer as the gravelly nature of the soil. Tobacco may likewise be cultivated with ease in Nova Scotia, as it is already everywhere in Canada, from Lake Champlain to the isle of Orleans, for the purpose of internal consumption.

This country is not deficient in the animal productions of the neighbouring provinces, particularly deer, beavers, and otters. Wild fowl, and all manner of game, and many kinds of European fowls and quadrupeds, have from time to time been brought into it and thrive well. At the close of March the fish begin to spawn, when they enter the rivers in such shoals as are incredible. Herrings come up in April, and the sturgeon and salmon in May. But the most valuable appendage of New Scotland is the Cape Sable coast, along which is one continued range of cod-fishing banks and excellent harbours. This fishery employs a great number of men, in some seasons not less than 10,000, when 120,000 quintals are caught, of which 40,000 may be exported. These, at the lowest price, must bring into the colony 26,000*l.* sterling, either in cash or in commodities necessary to the inhabitants. But this estimation, it must be observed, refers to a distant period, as that trade has now greatly increased.

Notwithstanding the comparatively uninviting appearance of this country, it was here that some of the first European settlements were made. The first grant of lands in it was given by James I. to his secretary Sir William Alexander, from whom it had the name of *Nova Scotia* or *New Scotland*. Since that period it has frequently changed proprietors, sometimes in the possession of the French, and sometimes in that of the English.

In 1604, the French first settled in Nova Scotia, to which they gave the name of *Acadia*. Instead of fixing towards the east of the peninsula, where they would have had larger seas, an easy navigation, and plenty of cod, they chose a small bay, afterwards called French Bay, which had none of these advantages. It has been said that they were invited by the beauty of Port Royal, where a thousand ships may ride in safety from every wind, where there is an excellent bottom, and at all times four or five fathoms of water, and eighteen at the entrance. It is more probable that the founders of this colony were led to choose this situation, from its vicinity to the countries abounding in furs, of which the exclusive trade had been granted to them. This conjecture is confirmed by the following circumstance—that both the first monopolizers, and those who succeeded them, took the utmost pains to divert the attention of their countrymen, whom an unsettled disposition, or necessity, brought into these regions, from the clearing of the woods, the breeding of cattle, fishing, and every kind of culture; choosing rather to engage the industry of these adventurers in hunting or in trading with the savages.

This colony was yet in its infancy when the settlement, which has since become so famous under the name of *New England*, was first established in its neighbourhood. The rapid success of the plantations in this new colony did not much attract the notice of the French. This kind of prosperity did not excite any jealousy between the two nations. But when they began to suspect that there was likely to be a competition for the beaver trade and furs, they endeavoured to secure to themselves the sole property of it, and were fortunate enough to succeed.

At their first arrival in Acadia, they had found the peninsula, as well as the forests of the neighbouring continent, peopled with small savage nations, who went under the general name of *Abenakies*. Though equally fond of war as other savage nations, they were more sociable in their manners. The missionaries easily insinuating themselves among them, had so far inculcated their tenets as to make enthusiasts of them. At the same time that they taught them their religion, they inspired them with that hatred which they themselves entertained for the English name. This fundamental article of their new worship, being that which made the strongest impression on their senses, and the only one that favoured their passion for war, they adopted it with all the rage that was natural to them. They not only refused to make any kind of exchange with the English, but also frequently disturbed and ravaged the frontiers of that nation.

This produced perpetual hostilities between the New Englanders and the French settlers in Acadia, till that province was, at the peace of Utrecht, for ever ceded to the English, who seemed not for a long time to discover the value of their new acquisition. They restored to it its ancient name of *Nova Scotia;* and having built a slight fortification at Port-Royal, which they called *Annapolis* in honour of Queen Anne, they contented themselves with putting a very small garrison into it. In process of time, however, the importance of Nova Scotia to the commerce of Great Britain began to be perceived; and at the peace of 1749, the ministry offered particular advantages to all persons who chose to go over and settle in Acadia. Every soldier, sailor, and workman, was to have 50 acres of land for himself, and ten for every person he carried over in his family. All non-commissioned officers were allowed 80 for themselves, and 15 for their wives and children; ensigns

Nova Scotia. || Scotland.

ensigns 200; lieutenants 300; captains 400; and all officers of a higher rank 600; together with 30 for each of their dependents. The land was to be tax free for the first ten years, and never to pay above one livre two sols six deniers * for fifty acres. Besides this, the government engaged to advance or reimburse the expenses of passage, to build houses, to furnish all the necessary instruments for fishery or agriculture, and to defray the expenses of subsistence for the first year. These encouragements determined 3740 persons, in the month of May 1749, to go to America, in hopes of bettering their fortune.

* About 1s. Sterling.

Thus encouraged, the province of Nova Scotia began to flourish, though in 1769 it sent out only 14 vessels and 148 boats, which together amounted to 7324 tons, and received 22 vessels and 120 boats, which together made up 7006 tons. They constructed three sloops, which did not exceed 110 tons burden. Their exportation for Great Britain and for the other parts of the globe did not amount to more than 729,850 livres 12 sols 9 deniers. † Continuing, however, true to its allegiance when the other colonies threw off the dominion of Great Britain, it has now become a place of great consequence both to the mother country and the West Indies. Its shipping and seamen have rapidly increased, as well as its produce, which affords the pleasing prospect of being able to supply itself with all the necessaries of life. It now supplies Britain with timber and fish to the amount of 50,000*l.* yearly; and receives from hence linen and woollen cloths to the value of about 30,000*l.* The number of persons who have abandoned their habitations in the more southern provinces, and settled either there or in Canada, is very great. The population of Nova Scotia was estimated by Mr Colquhoun in 1812, at 100,000; and it is without doubt the most convenient in point of situation of any province of America for a maritime power of Europe to be possessed of.

† About 30,410*l.* 8s. 10d. Sterling.

Scotists. || Scotland.

Scotia, in *Architecture*, a semicircular cavity or channel between the tores in the bases of columns.

SCOTISTS, a sect of school divines and philosophers, thus called from their founder *J. Duns Scotus*, a Scottish cordelier, who maintained the immaculate conception of the Virgin, or that she was born without original sin, in opposition to Thomas Aquinas and the Thomists.

As to philosophy, the Scotists were, like the Thomists, Peripatetics (see Peripatetics); only distinguished by this, that in each being, as many different qualities as it had, so many different formalities did they distinguish; all distinct from the body itself, and making as it were so many different entities; only these were metaphysical, and as it were superadded to the being. The Scotists and Thomists likewise disagreed about the nature of the divine co-operation with the human will, the measure of divine grace that is necessary to salvation, and other abstruse and minute questions, which it is needless to enumerate.

SCOTLAND.

1 Extent and boundaries.

SCOTLAND, the modern name of that part of the island of Britain which lies to the north of the Solway frith and the river Tweed. It is bounded on the north by that part of the Atlantic called the Northern ocean; on the east by the German ocean or North sea; on the west by the Atlantic ocean, and partly by the Irish sea; and on the south by England, the boundary on this side being formed by the river Tweed, the Cheviot hills, and an ideal line drawn south-west down to the Solway frith. Excluding the islands, the continental part of Scotland extends from the Mull of Galloway in the 55th to Cape Wrath in the 58½ degree of north latitude, and from 1° 35′ to 6° 20′ west from the meridian of Greenwich, counting from Buchanness on the east to Ardnamurchan on the west. If we include the islands of Shetland and the Hebrides, we shall find this part of the British empire extending northward to 63°, and westward to the isle of St Kilda to 8° 18′ west longitude. The continental part of Scotland is generally estimated at 260 miles in length, and about 160 at its greatest breadth, and its superficial contents have been computed at 27,793 square miles.

2 Divisions.

Scotland has been divided into Highlands and Lowlands; but the boundaries of these are arbitrary and undetermined. A more natural division appears to be that into northern, middle, and southern parts. The northern part is bounded to the south by a range of lakes, extending from the Murray frith to the island of Mull, in a south-west direction, and comprehends the counties of Orkney, Caithness, Sutherland, Ross, Cromarty and Inverness. The southern division extends northward to the friths of Forth and Clyde, and the canal by which they are united, and comprehends the counties of Linlithgow, Edinburgh, Haddington, Berwick, Renfrew, Ayr, Wigton, Lanark, Peebles, Selkirk, Roxburgh, Dumfries and Kirkcudbright. In the midland division are included the counties of Argyll, Bute, Nairn, Moray, Banff, Aberdeen, Mearns, Angus or Forfar, Perth, Fife, Kinross, Clackmannan, Stirling, and Dumbarton.

In the following table we have brought together some of the most important circumstances respecting the topography and statistics of these counties, viz. the *county town*, their *extent in square acres*, their *population*, according to the latest accounts, and the *number of militia* which each county is obliged to raise, according to last militia act.

SCOTLAND.
English Miles
Longitude West from Greenwich
ORKNEY ISLES
SHETLAND ISLES
Firth of Forth
Moray Firth
Dornoch Firth
Loch Broom
Sound of Jura
Colonsay
Tiree
Coll
Rum
Eig
Barra
North Uist
Benbecula
South Uist
Sanday
Stronsa
Westray
Rowsay
Mainland
Pentland Firth
Fula
Foula
Fair I.
Papa Stronsa
Sale Skerry
Fara
Rona
Stornoway
Lewis
Harris
Skye
Mull
Islay
Jura
Arran
Cumbrae
Bute
Kintyre
Campbeltown
Inverness
Aberdeen
New Aberdeen
Perth
Dundee
Edinburgh
Glasgow
Stirling
Paisley
Ayr
Dumfries
Kirkcudbright
Wigtown
Berwick
Haddington
Selkirk
Roxburgh
Dumbarton
Lanark
Renfrew
Argyll
Inverness
Ross
Sutherland
Caithness
Nairn
Elgin
Banff
Aberdeen
Kincardine
Forfar
Fife
Perth
Clackmannan
Stirling
Linlithgow
Edinburgh
Haddington
Berwick
Roxburgh
Selkirk
Peebles
Lanark
Renfrew
Ayr
Wigtown
Kirkcudbright
Dumfries
Argyll
Bute

3 Table of the counties.

Counties.	County Towns.	Square Acres.	Population in 1801.	Militia.	Population in 1811.	
Orkney and Shetland	Kirkwall		46,824		46,153	
Caithness	Wick	492,800 E.	22,609	121	23,419	
Sutherland	Dornoch	2,148,000 E.	23,117	100	23,629	
Ross	Dingwall	561,200 E.	53,525	270	60,853	Ross and Cromarty.
Cromarty	Cromarty	61,440 E.	3,052	16		
Inverness	Inverness	2,944,000 E.	74,292	384	78,336	
Argyle	Inverary	2,432,000 E.	75,700	364	85,585	
Bute	Rothsay	238,080 E.	11,791	61	12,033	
Nairn	Nairn	153,600 E.	8,257	43	8,251	
Murray	Elgin	537,600 E.	26,705	138	28,108	
Banff	Banff	649,600 E.	35,807	179	36,668	
Aberdeen	Aberdeen	718,816 E.	123,071	640	135,075	
Mearns	Bervie	243,444 E.	26,349	136	27,439	
Angus	Forfar	593,920 E.	99,127	511	107,264	
Perth	Perth	4,068,640 E.	126,366	653	135,093	
Fife	Cupar	322,560 E.	93,743	484	101,272	
Kinross	Kinross	43,920 E.	6,725	35	7,245	
Clackmannan	Culross	25,600 E.	10,858	56	12,010	
Stirling	Stirling	450,560 E.	50,825	163	58,174	
Dumbarton	Dumbarton	159,356 E.	20,710	107	24,189	
Linlithgow	Linlithgow	57,008 S.	17,844	94	19,451	
Edinburgh	Edinburgh	230,400 E.	122,954	645	148,607	
Haddington	Haddington	224,000 E.	29,986	154	31,164	
Berwick	Dunse	326,400 E.	30,206	155	30,779	
Renfrew	Renfrew	322,560 E.	78,056	404	92,596	
Ayr	Ayr	1,152,000 E.	84,306	436	103,954	
Wigton	Wigton	238,721 S.	22,918	119	26,891	
Lanark	Lanark	556,800 E.	147,796	751	191,752	
Peebles	Peebles	153,600 E.	8,717	45	9,935	
Selkirk	Selkirk	128,000 E.	5,070	25	5,889	
Roxburgh	Jedburgh	472,320 E.	33,712	178	37,230	
Dumfries	Dumfries	1,088,000 E.	54,597	284	62,960	
Kirkcudbright	Kirkcudbright	440,081 S.	29,211	151	33,684	
			1,604,826	8902	1,805,688	

For a topographical account of the several counties, the reader is referred to their names in the order of the alphabet.

4 Face of the country.

Scotland is in general extremely mountainous, especially on the northern and western sides, whence these parts have been denominated the *Highlands*. Even the eastern and southern parts of the country have very little of that uniform flatness which distinguishes some parts of England, but are agreeably diversified with hill and dale. Numerous rivers intersect the country; and several romantic lakes are found at the foot of the most remarkable mountains. There is in general little wood, except in the northern parts, where there are still immense forests. Nothing can appear more wild and savage to the eye of a stranger than the Highlands of Scotland. Here the whole country seems composed of blue rocks and dusky mountains heaped upon each other, with their sides embrowned with heath, and their summits covered with snow, which lies unthawed for the greater part of the year, or pours down their jagged sides in a thousand torrents and roaring cataracts, falling into gloomy vales or glens, some of which are so deep and narrow as to be altogether impenetrable by the rays of the sun. Yet even these mountains are in some places sloped into agreeable green hills fit for pasture, and interspersed with pleasant straths or valleys capable of cultivation; and there are several extensive districts of low fertile ground, though in other parts the interstices of the mountains are rendered nearly impassable by bogs and morasses. The entrance into the Highlands from the south-east near Dunkeld, is peculiarly impressive, there being here a considerable tract of plain, extending to what may be called the *gates* of the mountains.

The

Note.—The writers on Scottish topography have noted the extent of the several counties, sometimes in English, and sometimes in Scotch acres. We have therefore affixed to the numbers expressing the acres of each county, E or S, according as they are English or Scotch. The reader may reduce them to either standard, by recollecting that the Scotch acre exceeds the English nearly in the proportion of five to four.

Scotland.

5 Soil. The soil of Scotland, which, considering the little variety of the country, is extremely various, will be best understood by examining that of the several counties, as described under their respective heads. In some parts, as the carse of Gowrie in Perthshire, and most of the counties of Haddington and Berwick, the soil vies in fertility with the richest parts of England, or even Ireland, while in the more mountainous tracts of Ross-shire, Sutherland, and Argyle, the country is very little adapted to tillage, and is therefore almost wholly devoted to pasturing large flocks of sheep and herds of black cattle.

6 Mountains. The principal mountains of Scotland are those of the Grampians, extending from Loch Lomond to Stonehaven, and forming the southern boundary of the Highlands; the Leadhills, partly in Dumfries-shire and partly in Lanark-shire; the Cheviot hills, forming the principal part of the southern boundary, and the Ochil hills, north of the river Forth. The highest individual mountains are those of Ben Nevis, Cairngorum, Ben Lawers, Ben More, Ben Lomond, Schehallien, Mount Battock, and Cruachan. The situation and direction of the mountainous chains, and the minerals which they contain, have been described under Geology, N° 140.

7 Bays and gulfs. The most remarkable inlets of the sea on the Scottish coasts are, the friths of Forth, Tay, Solway, Murray, Cromarty, Dornoch, and Clyde, and the bays of Wigton and Glenluce. Many of what are called lochs, are properly large gulfs or inlets of the sea, especially Loch Fine, Loch Shin, Loch Broom, and Loch Linnhe.

8 Rivers. The chief rivers of Scotland are the Forth, that divides Stirling and Fife from the Lothians; the Tay, dividing Perth-shire and Angus-shire from Fife-shire; the Tweed, forming the boundary between Scotland and England to the east; the Clyde, passing through great part of Lanark-shire, and separating this county from those of Renfrew and Dumbarton; the Dee and the Don, passing through Aberdeen-shire; the Spey, separating the counties of Banff and Murray; the Nith, passing through Dumfries-shire, and the Eden in the county of Fife. See each under their respective names.

9 Lakes. The lakes or lochs of Scotland, are chiefly those of Lomond in Dumbarton-shire, Awe, in Argyle-shire, Tay, Katrine, and Erne, in Perth-shire; Loch Ness in Inverness-shire; and the classical lake of Leven in Kinross-shire. See Leven, Lomond, Tay, &c.

10. Forests. We have said that Scotland is in general bare of wood, though there are numerous traces of its having formerly abounded in forests. The most remarkable of these was Ettrick forest in the county of Selkirk; the forest of Mar in the west of Aberbeen-shire, where still remains a considerable tract of woodland, called Abernethy forest; the forest of Sletadale to the north of Dun-Robin in the county of Sutherland; those of Dirrymore and Dirrymena, to the north and south of Loch Shin, and the forest of Athol in the county of Perth.

11 Climate and seasons. The climate of Scotland is, if possible, still more inconstant than that of England; and though in general extremely healthy to the robust mountaineer, it is by no means genial to the valetudinarian. The eastern coast is exposed to the keenness of the east wind during the greater part of the year, while the western shores, from their vicinity to the Atlantic, are deluged with almost perpetual rain. The winter in this country is remarkable, rather for the abundance of snow which falls at that season, than for the intensity of frost; while in summer the heat of the sun is reflected with great violence in the narrow vales between the mountains, so as sometimes to occasion the appearance of glittering particles that seem to swim before the eye. The bareness of wood adds to the effects of sudden alternations of the weather, though it contributes to diminish the natural humidity of the air. The spring is in general very late and inclement, so as not unfrequently to destroy the fairest prospects of the farmer and the gardener. The harvests are also late; and we have seen corn either uncut, or standing in shéaves on the field, in the latter end of November.

12 Animals. The zoology of Scotland, as distinguished from that of England, offers little remarkable to the eye of the naturalist. In the northern counties, and in Galloway to the south, there is a breed of small horses, like the Welsh ponies, called *shelties*, which are extremely hardy but obstinate and skittish. The cattle in Galloway are often without horns; a circumstance which is said to add to the quantity and quality of the milk which they produce. One of the chief primitive breeds of cattle in this country are the kylies, so called from the province of Kyle. These are of a middle size, and have short sharp horns pointing upwards. The Scotch sheep are smaller and shorter than those of England, but their flesh is much more delicate; and the fleeces of the Shetland sheep are remarkable for the fineness of their wool. Goats are not nearly so common in the Highlands of Scotland as in most other mountainous tracts, and swine are very little cultivated, pork not being a favourite food among the inhabitants of North Britain. There seems to be no breed of dogs peculiar to this country; but the colies or shepherds dogs are remarkable for their sagacity, and are often entrusted with the guardianship of flocks and herds during their master's absence. There are scarcely any wild quadrupeds peculiar to Scotland. The wolf, indeed, continued here to a much later period than in England, and the wild cat is occasionally observed. Small herds of roes also are still found in some of the northern districts, and seals and porpoises frequent the sea coasts.

Of the native birds, the black cock and the grouse are the most remarkable. Eagles are often seen on the rocky cliffs, and elegant falcons in the remaining forests. The shores and islands present numerous sea fowl, and the isle of Bass is proverbially the haunt of the solan goose. The golden-crested wren is sometimes seen in the most northern parts of the country; but the nightingale has never yet appeared north of the Tweed.

The shores of Scotland are abundantly supplied with fish, especially herrings, haddocks, turbots, and lobsters; and the mouths of the great rivers, especially the Tweed and the Tay, furnish an inexhaustible supply of the finest salmon. Oysters are plentiful, but they are not so delicate as those on the coast of Essex. Mackerel, whitings, and smelts, are uncommon; and sprats are scarcely known. The lakes and streams abound in trout, perch, and other fresh-water fish. The whale sometimes appears on the northern coast, and the basking shark on the western inlets.

13 Vegetables. The vegetable productions of Scotland, considered in general,

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general, differ little from those of England; and those of the whole island may be seen by referring to the article BOTANY, where each British species is marked with an asterisk. We may remark, that the warm, moist regions of Cornwall, Devonshire, and Dorset; the range of chalk hills that forms the greater part of the banks of the Thames; the dry sandy tracts of Norfolk, Suffolk, and Cambridge; and the fens of Lincolnshire, contain many plants that are either unknown, or very rarely met with in North Britain: while on the other hand, the snowy summits of the Grampians, the extensive forests of Badenoch and Braemar, and the bleak unsheltered rocks of the Hebudes, possess many hardy vegetables not to be found in the southern parts of the island. South Britain contains a greater number of species peculiar to itself; but those that are similarly circumstanced in this northern division, are of more frequent occurrence. To the English botanist, Scotland will have more the air of a foreign country than England to a Scottish botanist. The researches of the former will be continually solicited, and repaid amid the grand romantic scenery of the Highlands, by the appearance of plants either altogether new to him, or which he has been accustomed to consider as the rare reward of minute investigation. In traversing the natural forests of birch and pine, though his attention will be first attracted by the trees themselves in every stage of growth, from the limber sapling to the bare and weather-beaten trunks that have endured the storms of 500 or 600 winters; the new forms of the humbler vegetables will soon divide his attention, and will each attract a share of his regard. It would be an uninteresting task both to us and our readers, to enumerate the plants more peculiar to Scotland. These may be found in Lightfoot's *Flora Scotica*, and many of them in Mr Pinkerton's *Geography*.

Scotland is by no means remarkable for abundance of fruit. Gooseberries, strawberries, and raspberries, do indeed ripen nearly as well as in England; and apples, pears, and some species of wall-fruit, as Orleans plums and apricots, are not uncommon; but peaches, nectarines, and grapes, are scarcely seen in the open air; and in the best gardens we have not observed the walnut, the mulberry, or the fig. Even the currants, which are very abundant, scarcely ever attain that degree of ripeness which can fit them for use as a dessert, but are employed almost entirely for jellies and wines. The chief fruit districts are those on the banks of the Clyde.

14 Minerals.

Few countries possess a greater store of subterraneous riches than Scotland; most of the metals, and some of the most valuable minerals, being very common. Even gold itself has been found in the Leadhills, in the sands of Elvan, a rivulet which joins the Clyde, and in the Ochil hills; and a considerable quantity of silver is annually obtained from the lead mines of Leadhills and Wanlockhead. Copper is rare; but has been met with near Alva in the Ochills; at Colvend in Galloway, and some other places. The most remarkable lead mines are those of Leadhills and Wanlockhead, Strontian and Islay; but traces of this metal have been found in other parts. Iron is a most abundant mineral production, but that called the Carron ore is best known. Cobalt is found at Alva; calamine (an impure oxide of zinc) at Wanlockhead; plumbago or graphite in Ayrshire; and antimony in Dumfries-shire.

Among the other minerals, coal is to be regarded as the most abundant and most valuable. We have already remarked, under GEOLOGY, that one of the two chief beds of coal found in this island, is that which runs from the valley traversed by the Tay and the Forth, westward to the coast of Ayrshire. The Lothians and Fifeshire particularly abound with coal; and it is not less abundant in the vicinity of Glasgow, and in several places of the counties of Ayr and Renfrew.

Scotland may be called the quarry of Britain, as hence is derived most of the stone that is carried to the south for building and paving. Abundance of freestone and limestone is found in most parts of the country; and the beauty and durability of the houses in the New Town of Edinburgh bear ample testimony to the value of the quarries in that neighbourhood. Beautiful granite is found in Ben Nevis, and fine statuary marble in Asynt, and in Blairgowrie in Perthshire. A black marble freckled with white occurs at Fort William; jasper is found in various parts; fullers earth occurs near Campbeltown, and considerable quantities of talc in the mountains of Findhorn. The beautiful quartz of Cairngorum is well known, and numerous pebbles of agates and onyxes are frequently collected on the eastern coast.

15 Mineral waters.

The mineral waters of Scotland are numerous; but the principal are those of Moffat, Peterhead, St Bernard's well near Edinburgh, and Pitcaithly. At Moffat are two springs, one a sulphureous, and the other from Hartfell a chalybeate water. The water at St Bernard's well is strongly impregnated with sulphur.

16 Natural curiosities.

Many singular natural curiosities are to be found in Scotland. Among these the beautiful falls of the Clyde, the insulated rock of the Bass, the scenery about Loch Lomond, and the isles of Staffa, Eigg, and Cannay, are chiefly deserving of notice. In the isle of Arran is an immense vaulted cavern, hollowed in the solid rock; and near Colvend in Dumfries-shire, and on the eastern coast of Fife, are several remarkable caves. Noss head presents a singular quarry of slate, marked with metallic figures; and at Glamma in the heights of Glenelchraig, is a cascade, which, viewed amidst the constant darkness of hills and woods, is truly sublime.

In the parish of Gearie in Banffshire are three remarkable natural curiosities; a perpendicular rock of very great extent full of shells, which are possessed by myriads of birds; a cave, or rather den, called *Hell's lum* or *chimney*, 50 feet deep, 60 long, and 40 broad, having a subterraneous passage to the sea, about 240 feet long, through which the waves are driven with great violence in stormy weather, so as to occasion smoke to rise from the den; and another subterraneous passage through a peninsula from sea to sea, nearly 450 feet long, and so narrow that a man can with difficulty creep through it. At one end of this passage is a cave about 20 feet high, 30 broad, and 150 long, supported by immense columns of rock.

17 Scottish islands.

There are three principal groups of Scottish islands; those of Shetland and Orkney, to the north of the Pentland frith, and that of the Hebudes, Hebrides, or Western Isles, in the Western Atlantic. An ample account of these will be found under the articles HEBRIDES, ORKNEY, and SHETLAND; and under the names of the principal individual islands. The isles of

Scotland.

of Bute and Arran, which are distinct from the Hebrides, have also been described under their respective names.

18 Names of North Britain.

The name Scotland, as applied to North Britain, is comparatively of recent date. By the later Roman writers, *Scotia* was applied to Ireland, as the country which had been colonized by the *Scoti*, and the names of *Hiberni* and *Scoti* are, after the 4th century of the Christian era, indiscriminately applied to the inhabitants of Ireland. When North Britain first became known to the Romans under Agricola, it was by them denominated *Caledonia*, from its abounding in forests, and the natives were called *Caledonii*. These names continued in use till the extirpation of the Roman power in Britain, when this part of the island was generally known by the name of *Provincia Pictorum*, and the inhabitants were divided into *Picti-Caledonii*, and *Picti*. It is not till the 11th century that we find *Scotia* or *Scotland* appropriated to North Britain.

With respect to the origin of this name there is much dispute; but it is generally agreed that the term *Scots* was applied to the inhabitants of North Britain by their neighbours, by way of reproach.

19 Aborigines of Scotland.

Few points have been disputed with more keenness and more asperity than the original population of Scotland. The Irish and the Scotch have strenuously contested the claim of their country to be the stock from which the other was colonized. There seems no doubt that both Britain and Ireland were originally peopled by the Celtic tribes, who had long before occupied the west of Europe, and advanced from the shores of Gaul, probably across the straits of Dover, to take possession of the southern part of Britain. Thence it appears they extended themselves northwards, till they had peopled the whole island, when, from a spirit of enterprise, or to find more room and better pasture for their herds, they crossed the channel to the west of Britain, and planted a colony in Ireland. This seems to be their most natural route; and numerous authorities have been lately adduced to prove, not only that the whole of Britain and Ireland were peopled by Celtic tribes, but that the colonization of Ireland was subsequent to that of Scotland. "This region (North Britain) during the first century," says Mr Chalmers, "is a small but genuine mirror of Gaul during the same age. North Britain was inhabited by one-and-twenty clans of Gaelic people, whose polity, like that of their Gaelic progenitors, did not admit of very strong ties of political union. They professed the same religious tenets as the Gauls, and performed the same sacred rites; their stone monuments were the same, as we know from remains. Their principles of action, their modes of life, their usages of burial, were equally Gaelic; and above all, their expressive language, which still exists for the examination of those who delight in such lore, was the purest Celtic." *

* *Caledonia*, vol. i. p. 33.

20 Names and situations of the Aboriginal tribes.

The names and position of the 21 tribes which occupied North Britain in the first century, have been minutely investigated by Mr Chalmers, and we shall here briefly state the result of his investigations. The first tribe which he mentions is that of the *Ottadini*, who possessed the country which stretches from the river Tyne northward along the coast of the German sea and the frith of Forth. On the west of these lay the *Gadeni*, occupying the western part of Northumberland, that small portion of Cumberland which lies to the north of the river Irthing; the west of Roxburghshire, the whole of Selkirk and Tweeddale, part of Mid Lothian, and nearly the whole of West Lothian, or Linlithgow. To the south-west of the *Gadeni* lay the *Selgovæ*, inhabiting Annandale, Nithsdale, and Eskdale in Dumfries-shire; the eastern part of Galloway as far as the river Dee, which formed their western boundary; while to the south they extended to the Solway frith. The *Novantes* inhabited the western and middle parts of Galloway, from the Dee on the east to the Irish sea on the west. The *Damnii* occupied the whole extent of country from the ridge of hills lying between Galloway and Ayrshire on the south, to the river Earn on the north, comprehending all Strathcluyd, the counties of Ayr, Renfrew, and Stirling, with a small part of Dumbarton and Perth. The *Horestii* inhabited the country lying between the Forth and Tay, including the shires of Fife, Clackmannan, and Kinross, with the eastern part of Strathearn, and the country lying westward of the Tay, as far as the river Brand. The *Venricones* possessed the country between the Tay and the Carron, comprehending a great part of Perthshire, the whole of Angus, and part of Kincardineshire. The *Taixali* inhabited the northern part of the Mearns, and the whole of Aberdeenshire, to the Doveran; a district which included the promontory of Kinnaird's-head, to which the Romans gave the name of *Taixalorum promontorium*. The *Vacauagi* occupied the country on the south side of the Murray frith, from the Doveran on the east, to the Ness on the west: an extent comprehending the shires of Banff, Elgin, Nairn, the east part of Inverness, with Braemar in Aberdeenshire. The *Albani*, afterwards called *Damnii Albani*, inhabited the interior districts, between the lower ridge of the Grampians on the south, and the chain of mountains forming the southern limit of Inverness-shire on the north, including Braidalban, Athol, a small part of Lochaber, with Appin and Glenorchy in Upper Lorn. The *Attacotti* inhabited the whole country from Loch Fine on the west, to the eastward of the river Leven and Loch Lomond, comprehending the whole of Cowal in Argyleshire, and the greater part of Dumbartonshire. The proper *Caledonii* possessed the whole of the interior country, from the ridge of mountains which separates Inverness from Perth on the south, to the range of hills that forms the forest of Bahnagavan on the north, comprehending all the middle parts of Inverness and of Ross. The *Cantæ* inhabited the east of Ross-shire from the æstuary of Varrar on the south, to the frith of Dornoch on the north, having the frith of Cromarty in the centre, and a ridge of hills on the west. The south-eastern coast of Sutherland was inhabited by the *Logi*, whose country extended from the frith of Dornoch on the south-west to the river Ila on the east. The *Carnabii* inhabited the south of Caithness from the Ila river; the small tribe of the *Cateni* inhabited the north-west corner of Caithness; and the *Mertæ* occupied the interior of Sutherland. The *Carnonacæ* inhabited the north and west coast of Sutherland, while the *Creones* occupied the west coast of Ross-shire, the *Ceroues* the western coast of Inverness, and the *Epidii* the south-west of Argyleshire, from Loch Linnhe to the frith of Clyde.

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21 Druidical antiquities in Scotland.

All these Celtic tribes, in their laws, religion, manners, and customs, appear to have resembled the Britons of the south. Their life was equally simple, their manners were equally savage, and their religion, like that of the South Britons, was certainly Druidical. See ENGLAND, N° 4, and the article DRUIDS. The fact of Druids having existed in North Britain, so strenuously denied by some writers, is, in the opinion of Mr Chalmers, completely ascertained by numerous remains of places of Druidical worship. These he has been at much pains to investigate, and has described several remarkable circles of stones and rocking stones, resembling in almost every particular those in South Britain, which are on all hands allowed to be Druidical. Some remarkable remains of this kind occur in the parish of Kirkmichael in Perthshire, where there is an immense rocking stone standing on a flat-topped eminence in the vicinity of a large body of Druidical remains. Opposite to the manse of Dron, in the same county, there is another large rocking stone, ten feet long and seven broad; and in the parish of Abernethy, near Balvaird, there is a third which attracted the notice of Buchanan. In the stewartry of Kirkcudbright is a stone of a similar description, called *Logan stone*, which from its size appears to be eight or ten tons in weight, and is so nicely balanced on two or three protuberances, that the pressure of the finger produces a rocking motion from the one side to the other. †

† *Caledonia*, vol. i. p. 76.

22 Robertson's division of the Scottish history.

It has been remarked by Dr Robertson, that the history of Scotland may properly be divided into four periods. The first reaches from the origin of the monarchy to the reign of Kenneth II.; the second, from Kenneth's conquest of the Picts to the death of Alexander III.; the third extends to the death of James V.; the last, from thence to the accession of James VI. to the crown of England. In the opinion of the same historian, the first period, extending from the earliest accounts to the year 843 of the Christian era, is the region of pure fable and conjecture, and ought to be totally neglected, or abandoned to the industry and credulity of antiquaries; that in the second period from 843 to 1286, truth begins to dawn with a light feeble at first, but gradually increasing, and that the events which then happened may be slightly touched, but merit no particular or laborious enquiry; that in the third period, from 1286 to 1542, the history of Scotland, chiefly by means of records preserved in England, becomes more authentic, as not only events are related, but their causes and effects are explained; and here every Scotchman should begin, not only to read, but to study the history of his country.

23 No authentic traces of Scottish history previous to the Christian era.

It must be allowed that most of the transactions recorded by Buchanan and Boece, as having taken place in Scotland before the Christian era, are either purely fabulous, or are substantiated by no authentic documents; and we cannot but contemplate with the smile of incredulity, the long and minute list of Scottish monarchs from Fergus I. to Fergus II., so pompously displayed by these historians. That the names of 39 princes should be handed down with correctness by uncertain traditions, for a period of 690 years; that the duration of their reigns and the date of their accession should be so exactly ascertained, is surely a circumstance of the highest improbability; and we are compelled to believe that the earlier writers of Scottish history, like the Chinese annalists, have described the transactions of the same monarch under different names, or under the same names with the designation of I, II, III, &c. This is rendered the more probable by considering that both Fergus I. and Fergus II. are said to have been of Irish extraction, and to have come over from Ireland to assist the inhabitants of North Britain against their more powerful neighbours. Under the persuasion that nothing authentic can be recorded in the Scottish history before the arrival of the Romans in Britain, we shall commence the historical part of this article from the period when Agricola first penetrated north of the Tweed.

It is to the luminous pages of Tacitus that we must look for the first rational and authentic documents of Scottish history.

24 Invasion of Scotland by Agricola. An. 80.

The invasion of Agricola happened during the dominion of a chief, called by the Roman historians *Galgacus*. Agricola having completed the conquest of the southern part, and in a great measure civilized the inhabitants, formed a similar plan with regard to Scotland. It is probable, that at this time the Caledonians had become formidable by the accession of numbers from the south; for though the Romans had civilized the greatest part, it cannot be doubted that many of those savage warriors, disdaining the pleasures of a peaceable life, would retire to the northward, where the martial disposition of the Caledonians would better suit their inclination. The utmost efforts of valour, however, were not proof against the discipline of the Roman troops, and the experience of their commander. In the third year Agricola had penetrated as far as the river Tau, (probably the *Solway Frith*, and not the *Tay*); but the particulars of his progress are not recorded. The following year he built a line of forts between the friths of Forth and Clyde, to exclude the Caledonians from the southern parts of the island; and the year after, he subdued those parts which lay to the south and west of his forts, namely, the districts of Galloway, Cantyre, and Argyle.

Agricola still pursued the same prudent measures by which he had already secured the possession of such a large tract of country, that is, advancing but slowly, and building forts as he advanced, in order to keep the people in obedience. The Caledonians, though commanded by their king Galgacus, who is said to have been well acquainted with the manner of fighting and discipline of the Romans, were yet obliged to retreat; but at last, finding that the enemy made such progress as endangered the subjugation of the whole country, he resolved to cut off their communication with the southern parts, and likewise to prevent all possibility of a retreat by sea. Agricola, though solicited by some of his officers, refused to retreat; but divided his troops into three bodies, having a communication with each other. Upon this, Galgacus resolved to attack the weakest of the three, which consisted only of the ninth legion, and lay at that time, as is said, at a place called *Lochore*, about two miles from Loch-Leven in Fife. The attack was made in the night: and as the Romans were both unprepared and inferior in number, the Caledonians penetrated into the heart of their camp, and were making a great slaughter, when Agricola detached some light-armed troops to their assistance; by whom the Caledonians in their turn were routed, and forced to fly to the marshes and inaccessible places, where the enemy could not follow them.

This engagement has been magnified by the Roman historians into a victory, though it can scarcely be admitted

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mitted as such from the testimonies of other historians. The Romans, however, certainly advanced very considerably, and the Caledonians as constantly retreated, till they came to the foot of the Grampian mountains, where the latter resolved to make their last stand. In the eighth year of the war, Agricola advanced to the foot of the mountains, where he found the enemy ready to receive him. Tacitus has given us a speech of Galgacus, undoubtedly fabricated for him, in which he sets forth the aspiring disposition of the Romans, and encourages his countrymen to defend themselves vigorously, as knowing that every thing valuable was at stake. A desperate engagement accordingly ensued. In the beginning, the Britons had the advantage, by the dexterous management of their bucklers: but Agricola having ordered three Tungrian and two Batavian cohorts, armed with short swords, and embossed bucklers terminating in a point, to attack the Caledonians, who were armed with long swords, the latter soon found these weapons useless in a close encounter; and as their bucklers covered only a small part of their bodies, they were easily cut in pieces by their adversaries. The most forward of their cavalry and charioteers fell back upon their infantry, and disordered the centre: but, the Britons endeavouring to out-flank their enemies, the Roman general opposed them with his horse; and the Caledonians were at last routed with great slaughter, and forced to fly into the woods, whither the Romans pursued with so little caution, that numbers of them were cut off. Agricola, however, having ordered his troops to proceed more regularly, prevented the Caledonians from attacking and cutting off his men in separate parties, as they had expected; so that this victory proved the greatest stroke to the Caledonians that they had hitherto received. This battle is supposed by some to have been fought in Strathern, half a mile south from the kirk of Comrie; but others imagine the place to have been near Fortingal-Camp, a place somewhat farther on the other side of the Tay.

25 Great victory gained by the Romans.

Great as this victory was, it seems not to have been productive of any solid or lasting advantage to the Romans; since we find that Agricola, instead of putting an end to the war by the immediate conquest of all Caledonia, retreated into the country of the Horestii. Here he received hostages from part of the Caledonians; and ordered part of his fleet to sail round Britain, that they might discover whether it was an island or a continent. The Romans had no sooner left that part of the country, than the Caledonians demolished all the forts they had raised: and Agricola being soon after recalled by Domitian, the further progress of the Roman arms was stopped; Galgacus proving superior to any of the successors of that general.

From the time of Agricola to that of Adrian, we know little of the affairs of Scotland, excepting that during this interval the Caledonians must have entirely driven the Romans out of their country, and reconquered all that tract which lay between Agricola's chain of forts and Carlisle on the west, and Newcastle or Tinmouth-bar on the east; which Adrian, on visiting Britain, thought proper to fix as the northern boundary of the Roman dominions. Here he built a wall of turf between the mouth of the Tine and the Solway frith, with a view to shut out the barbarians; which, however, did not answer the purpose, nor indeed could it be thought to do so, as it was only built of turf, and guarded by not more than 18,000 men, who could not be supposed a sufficient force to defend such an extent of fortification.

26 Wall built by Adrian. An. 120.

In the reign of Antoninus Pius, the proprætor Lollius Urbicus drove the Caledonians far to the northward, and repaired the chain of forts built by Agricola, which lay between the Carron on the frith of Forth and Dunglass on the Clyde. These were joined together by turf walls, and formed a much better defence than the wall of Adrian. After the death of Antoninus, however, Commodus having recalled Calpurnius Agricola, an able commander, who had kept the Caledonians in awe, a more dangerous war broke out than had ever been experienced by the Romans in that quarter. The Caledonians having passed the wall, put all the Romans they could meet with to the sword: but they were soon repulsed by Ulpius Marcellus, a general of consummate abilities, whom Commodus sent into the island.—In a short time the tyrant also recalled this able commander. After his departure, the Roman discipline in Britain suffered a total relaxation; the soldiery grew mutinous, and great disorders ensued: but these were happily removed by the arrival of Clodius Albinus, a person of great skill and experience in military affairs. His presence for some time restrained the Caledonians within proper bounds: but a civil war breaking out between him and Severus, Albinus crossed over to the continent with the greatest part of the Roman forces in Britain; and meeting his antagonist at Lyons, a dreadful battle ensued, in which Albinus was utterly defeated, and his army cut in pieces. See ROME, N° 375.

27 Government of Lollius Urbicus. An. 139.

The absence of the Roman forces gave encouragement to the Caledonians to renew their depredations, which they did with such success, that the emperor became apprehensive of losing the whole island; on which he determined to go in person and quell these troublesome enemies. The army collected by him on this occasion was far more numerous than any the Romans had ever sent into Britain; and being commanded by such an able general as Severus, it may easily be supposed that the Caledonians must have been reduced to great difficulties. The particulars of this important expedition are very imperfectly related; but we are assured that Severus lost a vast number of men, it is said not fewer than 50,000, in his march through Scotland. Notwithstanding this, however, he is said to have penetrated to the most northern extremity of the island, and obliged the enemy to yield up their arms. On his return, he built a much stronger fortification to secure the frontiers against the enemy than had ever been done before, and which in some places coincided with Adrian's wall, but extended farther at each end. But in the mean time the Caledonians, provoked by the brutality of the emperor's son Caracalla, whom he had left regent in his absence, again took up arms; on which Severus himself took the field, with a design, as appears, to extirpate the whole nation; for he gave orders to his soldiers "not to spare even the child in the mother's belly." The event of the furious order is unknown: but in all probability the death of the emperor, which happened soon after, put a stop to the execution of this revenge; and it is certain that his son Caracalla, who succeeded Severus, ratified the peace with the Caledonians.

28 Wars of Severus with the Caledonians. An. 208.

After the treaty of Caracalla in 211, perpetual hostilities

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29 Transactions from 211 to 446.

lities occurred between the Romans and Caledonians, assisted by the Picts. The inroads of these northern tribes were repelled by the Roman legions under Constantius, and after his death in 306, they appear to have remained quiet till 343, when a fresh inroad of the Picts is said to have been repelled by Constans. In the year 360, the Scotch are first mentioned by Roman writers. They were, as we have said, an Irish people of Caledonian extraction, and at this time invaded Scotland, and joined with the Picts against the Romans and their tributaries. In 364 they made a very formidable attack on the Roman provincials, and in 367 had advanced as far as Augusta, or London, where they were met by Theodosius, and were compelled to retire. From this time to 446, when the Romans finally quitted the British island, nothing remarkable occurs in the history of Scotland.

30 Picts.

Of the Picts, who now begin to make a figure in Scottish history, we have given an account under the article PICTS, and shall here remark only that the name Picti does not properly belong to a new or distinct tribe of the inhabitants of North Briton, but was applied about this time to a part of the Caledonians who inhabited a considerable tract of country north of the friths of Forth and Clyde; and that the dominion of their kings, of whom a long list is given by Mr Chalmers, extended from the year 451 to 842, when it finally terminated.

31 Appearance of a colony from Ireland.

An. 503.

In the middle of the second century, one of those turbulent tribes which long involved Ireland in contest and dissension, possessed themselves of the north-east corner of Ireland, under the conduct of Cairbre-Riada; and from the name of their leader gave to this district the denomination of Dal-Riada, or the portion of Riada. The sixth century had scarcely commenced, when the progress of population and the spirit of enterprise induced a number of the inhabitants of Dal-Riada to emigrate to the opposite coast of North Britain, led by three chiefs, Loarn, Fergus, and Angus, the three sons of Erc, the descendant of Cairbre-Riada, who then ruled over the Dalriadan tribe. They landed in the country of the Epidii, in the south-west of Argyleshire, about the year 503. These colonies, who to the time of Bede, were denominated Dalriadini, brought with them their language, religion, manners and customs, which differed in some respects from those of the Celtic tribes which had long occupied the north of Britain.

In the records of time there scarcely occurs a period of history so perplexed and confused as that afforded by the annals of the Scoto-Irish tribes, from their settlement in 503 to their ultimate ascendency in 843. The want of cotemporaneous writings left an ample field for the conflicts of national emulation. Ignorance and ingenuity, sophistry and system, contributed by various efforts to darken what was already sufficiently obscure. There remain, however, in the sister island, various documents of subsequent compilation, which throw considerable light on the obscure transactions of the Scoto-Irish tribes, and enable us to unravel the entangled genealogies of their kings. These consist chiefly of the Irish annals of Tigernoch and of Ulster, with the useful observations on them of O'Flaherty and O'Connor; of several brief chronicles and historical documents first brought to light by Innes; and of a Gaelic poem, containing a genealogical account of the Scoto-Irish kings. From these documents Mr Chalmers has constructed an elaborate genealogical and chronological table of those kings, from Fergus to Kenneth Macalpin, from which we shall extract the two most important columns, showing the date of accession, and the duration of the reigns of the several monarchs.

	Accessions.	Reigns.
1. Fergus the son of Erc,	503	3
2. Domangart the son of Fergus,	506	5
3. Comgal, son of Domangart,	511	24
4. Gauran, son of Domangart,	535	22
5. Conal, son of Comgal,	557	14
6. Aidan, son of Gauran,	571	34
7. Eocha-bui, the son of Aidan,	605	16
8. Kennetb-ccar, son of Eocha-bui,	621	¼
9. Ferchar, son of Eogan, first of Loarn's race,	621	16
10. Donal-breac, son of Eocha-bui,	637	5
11. Conal II. grandson of Conal I.	642	10
12. Dungal reigned some years with Conal,		
13. Donal-Duin, son of Conal,	652	13
14. Maolduin, son of Conal,	665	16
15. Ferchar Fada, grandson of Ferchar I.	681	21
16. Eocha-Rineval, son of Domangart,	702	3
17. Ainbhccalach, son of Ferchar-Fada,	705	1
18. Selvach, son of Ferchar-Fada, reigned over Loarn from 706 to 729,		
19. Duncha-beg over Kintire till 720,	706	27
20. Eocha III. son of Eocha-rinwal over Kintyre and Argail from 720 to 729, and over Loarn from 729 to 733,		
21. Muredach, son of Ainbhccalach,	733	3
22. Eogan, son of Muredach,	736	3
23. Aodh-Fin, son of Eocha III.	739	30
24. Fergus, son of Aodh-Fin,	769	3
25. Selvach II. son of Eogan,	772	24
26. Eocha-Anneune IV. son of Aodh-Fin,	796	30
27. Dungal, son of Selvach II.	826	7
28. Alpin, son of Eocha-Annuine IV.	833	3
29. Keneth, son of Alpin,	836	7

We shall not attempt to follow Mr Chalmers through the detail of events which he has narrated as taking place during the reigns of the Scoto-Irish kings. Whatever light he may have thrown on this obscure part of Scottish history, it must still remain uninteresting, except to the antiquary, and the minute historian. It is of more importance to the general reader, to be informed of the manners and customs, the polity and the laws of the tribes that occupied the chief part of North Britain at the accession of Kenneth II. from whose reign, as we have already remarked, the Scottish history begins to dawn.

32 Laws and customs of Scoto-Irish tribes.

We have said that the Dalriadinian colonists brought with them from Ireland, and established in their new settlements, their peculiar laws and customs. According to these laws, the succession both of the kings and chief-

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tains was so regulated, that the person in the family who seemed best qualified, from abilities or experience, to exercise the chief authority, whether a son or a brother, was fixed on by the tribe for the succession to the vacant throne or chieftainship. Much of the dignity of the monarch was supported by the voluntary contributions of his vassal princes and chiefs, paid in cattle, clothes, and utensils; and the monarch was compelled to purchase the service and assistance of these chiefs by similar presents; in consideration of which they entertained the sovereign in his journeys, and served him in his wars during a limited period. A similar polity appears to have pervaded all ranks among the Scoto-Irish people, from the king to the prince, and from the prince to the chieftain. The toparch governed his district as the monarch governed his kingdom; and the chieftains ruled their territories and their fortified villages, on the same principles of mutual dependence, of the higher on the lower, and of the subordinate on the superior ranks. Such brittle ties were easily broken; and during these rude times, when the voice of law was but faintly heard, the performance of those reciprocal duties could be enforced only by the dread of assassination, and the breach of them punished only by the sword.

The Scoto-Irish women, of whatever rank, seem not to have been entitled to the slightest possession of land, under the Brehon law. To them were assigned a certain number of their father's cattle as their marriage-portion. The herds of the Scoto-Irish were so frequently within their contemplation, and during a rude state of society supplied so many comforts to their possessors, that the native terms which signify possession, or a field, also convey the idea of a herd or drove. Yet such is the copiousness of the Irish language, that it has a great variety of terms which convey the notion of a law; but we may infer from these law-terms, with their several modifications, that the people of whom we are speaking had little of positive statute, or written law; their whole body of jurisprudence consisting almost entirely of traditionary customs, and local usages. According to Cox, it was no written law, but only the will of the brehon or lord. And it is observable that these brehons held their offices by descent and inheritance, and of course were not qualified for the posts to which he succeeded. The brehon or judge, when he administered justice, used to sit on a turf or heap of stones, or on the top of a hillock, without covering, and without clerks, or any of the usual formalities of a court of judicature. Some remains of this state of laws and manners may be traced in some parts of Scotland to the present period. Every baron had his mote-hill, whence he distributed justice to his vassals, either in person, or by his baron-bailie. Under the brehon system all crimes were commutable; theft, rape, and even murder, were punished by a fine.

It was an ancient custom of these tribes, that every head of every *sept*, and the chief of every clan, should be answerable for each of their sept or kindred, when charged with any crime; and it is remarkable that both in Ireland and Scotland this ancient custom was adopted into the statute book. The protection of bees was a great head of the brehon law. The Scoto-Irish territories were fully peopled by this industrious race, and their honey supplied abundance of *mead*, the favourite beverage of the ancient Britons. In vain do the Irish antiquaries give us splendid pictures of the learning, opulence, and refinement, of the ancient Irish; the laws of every people are the truest histories of their domestic affairs. While we see that the wealth of these tribes consisted of their bees and their cattle, we may certainly infer, that they had only advanced from the first to the second stage of society, from hunters to feeders of flocks. In this unrefined state the Scoto-Irish long continued, as is evident from their rent-rolls.

It is apparent that more of wretchedness than of comfort prevailed among the Dalriadinian districts in every rank of society. Their best houses were built of wattles; and buildings of lime and stone were late works of more intelligent times. The clothing even of the monks was the skins of beasts, though there is no doubt that they obtained from abroad, by means of traffic, both woollen and linen stuffs. Venison and fish, the flesh of seals, and milk, constituted the food of the people; but the monks of Iona, who lived by their labour, and perhaps the chief, had some provision of corn. The most unbounded hospitality was enjoined by law, as well as by manners, as a capital virtue. Manufactures and trades exercised as a profession were unknown. Every family had its own carpenter, weaver and shoemaker, however unskilful and inadequate to the uses of civilization these homely workmen might appear.

The Scoto-Irish tribes were not destitute of shipping, which consisted partly of canoes, and partly of a more skilfully constructed kind of vessels called *currachs*. These were formed by covering a keel of wood and a frame of wicker-work, with skins of cattle and of deer, and by experience these rude boats were improved into roomy vessels, that served either for transports or for war.

Of the various customs of the Scoto-Irish, that of *fosterage* has been regarded as a subject for particular speculation. By this singular custom, children were mutually given from different families to be nursed by strangers. The lower orders considered this trust as an honour, rather than a service, for which an adequate reward was either given or accepted. The attachment of those who were thus educated is said to have been indissoluble; for, according to Camden, there is no love in the world comparable to that of foster-brethren in Ireland. From this practice arose a connexion of family, and a union of tribes, which often prompted and sometimes prevented evil feuds. *

* Chalmers's Caledonia. vol. i.

33 State of religion in the 6th century.

The Dalriadinian tribe which colonized the south-west of Scotland, in the beginning of the sixth century, professed the Christian religion, which had been introduced into Ireland in the middle of the preceding century. They did not, however, introduce into Scotland a new religion, for there is reason to believe that the benign influence of Christianity had been felt in those parts of North Britain which were inaccessible to the Roman power so early as the beginning of the third century; and the Romanized Britons of Valencia, called by Bede the southern Picts, had been converted from the superstitions of Druidism at the commencement of the fifth century. This reformation is attributed to St Ninian, a native of the country of the Novantes, born of noble parentage, about the year 360. (See NINIA.) St Ninian died on the 16th September 432; on which day a festival in honour of his name was celebrated in Britain for many ages. About the middle of the sixth

century, appeared Kentigern, a Christian bishop, who fixed his residence at Alcluyd, in the kingdom of Cumbria. He contributed much towards improving the state of religion in North Britain, where he continued his instructions with little interruption till the year 601. Contemporary with Kentigern was the celebrated Columba, who converted the northern Picts, and has always been held in the highest veneration as one of the principal saints in the North British calendar. He established the seat of his ecclesiastical academy in the small island of Hy, or Iona, which had been conferred on him either by Connal, king of the Scoto-Irish, or Bridei, the Pictish sovereign. Here he settled with his 12 disciples, and laboured for two years with their own hands in erecting huts, and building a church. In the course of a few years Columba had converted Bridei, king of the Picts, and most of his subjects, and had established monasteries in several parts of the Caledonian territories. (See COLUMBA).

34 Wars between the Scots and Picts.

Before entering on the reign of Kenneth, it may be proper to take a short view of that of his father and predecessor, Alpin, as in his reign commenced those bloody conflicts between the Scots and Picts which finally terminated in the subjugation or expulsion of the latter.

At the accession of Alpin, the dominion of the Scots comprehended the Western islands, together with the districts of Argyle, Knapdale, Kyle, Kintyre, Lochaber, and a part of Breadalbane; while the Picts possessed all the rest of Scotland, and part of Northumberland; so that the Picts seem to have been by much the more powerful people of the two. The Scots, however, appear to have been superior in military skill; for Alpin, the successor of Dongal, having engaged the Pictish army near Forfar, after an obstinate engagement defeated them, and killed their king, though not without the loss of a great number of his own men. The Picts chose Brudus, the son of their former king, to succeed him; but soon after deposed and put him to death, on account of his stupidity and indolence. His brother Kenneth shared the same fate on account of his cowardice; till at last another Brudus, a brave and spirited prince, ascended the throne. Having raised a powerful army, he began with offering terms of peace to the Scots; which, however, Alpin rejected, and insisted on a total surrender of his crown. Brudus on this endeavoured to procure the assistance of Edwin king of Northumberland. Edwin accepted the money offered by Brudus; but pretending to be engaged in other wars, refused the assistance which he at first promised. Brudus, not dismayed by this disappointment, marched resolutely against his enemies; and the two armies came to an engagement near Dundee. The superior skill of the Scots in military affairs was about to have decided the victory in their favour, when Brudus thought of the following stratagem to preserve his army from destruction. He caused all the attendants, and even the women who attended his army, to assemble and show themselves at a distance as a powerful reinforcement coming to the Picts. This struck the Scots with such a panic, that all the efforts of Alpin could not recover them, and they were defeated with great slaughter. Alpin himself was taken prisoner, and soon after beheaded by order of the conqueror. This execution happened at a place now called *Pit-alpy*, but in former times *Bas-alpin*, which in the Gaelic language signifies the *death of Alpin*. His head was afterwards stuck upon a pole, and exposed on a wall.

35 The Scots defeated, and their king killed.

36 Reign of Kenneth II.

Alpin was succeeded by his son Kenneth II. who being a brave and enterprising prince, resolved to take a most severe revenge for his father's death. The Scots, however, were so dispirited by their late defeat, that they were exceedingly averse to any renewal of the war; while, on the other hand, the Picts were so much elated, that they made a law by which it became death for any man to propose peace with the Scots, whom they resolved to exterminate; and some of the nobility were expelled the council on account of their opposition to this law. The consequence of this was, that civil dissensions took place among them, and a bloody battle was fought between the opposite parties, before the Scots had thought of making any farther resistance.

By these distractions Brudus, who had in vain endeavoured to appease them, was so much affected, that he died of grief, and was succeeded by his brother Drusken.—The new prince also failed in his endeavours to accommodate the civil differences; so that the Scots, by gaining respite, at last began to recover from their consternation; and some of them having ventured into the Pictish territories, carried off Alpin's head from the capital of their dominions, supposed to have been Abernethy. In the mean time, Kenneth found means to gain over the nobility to his side by the following stratagem; which, however ridiculous, is not incredible, if we consider the barbarism and superstition of that age. Having invited them to an entertainment, the king introduced into the hall where they slept a person clothed in a robe made of the skins of fishes, which made such a luminous appearance in the dark, that he was mistaken for an angel or some supernatural messenger. To add to the terror of those who saw him, he denounced, through a speaking trumpet, the most terrible judgments, if war was not immediately declared against the Picts, the murderers of the late king. In consequence of this celestial admonition, war was immediately renewed with great vigour. The Picts were not deficient in their preparations, and had now procured some assistance from England. The first battle was fought near Stirling; where the Picts, being deserted by their English auxiliaries, were utterly defeated. Drusken escaped by the swiftness of his horse, and a few days after made application to Kenneth for a cessation of hostilities; but as the Scottish monarch demanded a surrender of all the Pictish dominions, the treaty was instantly broken off. Kenneth pursued his good fortune, and conquered the counties of Mearns, Angus, and Fife; but as he marched against Stirling, he received intelligence that these counties had again revolted, and cut off all the garrisons which he had left, and that Drusken was at the head of a considerable army in these parts. On this Kenneth hastened to oppose him, and a negociation again took place. The result was equally unfavourable with the rest. Kenneth insisted on an absolute surrender of the counties of Fife, Mearns, and Angus; and as this was refused, both parties prepared for a decisive battle. The engagement was very bloody and desperate, the Picts fighting like men in despair. Drusken renewed the battle seven times; but at last was entirely

37 Stratagem of Kenneth to renew the war.

tirely defeated and killed, and the counties in dispute became the immediate property of the conqueror.

Kenneth did not fail to improve his victory, by reducing the rest of the Pictish territories; in which he is said to have behaved with the greatest cruelty, and even to have totally exterminated the inhabitants. The capital, called *Camelon*, (supposed to have been Abernethy), held out four months; but was at last taken by surprise, and every living creature destroyed. This was followed by the reduction of the Maiden Castle, now that of Edinburgh; which was abandoned by the garrison, who fled to Northumberland.

After the reduction of these important places, the rest of the country made no great resistance, and Kenneth became master of all the kingdom of Scotland in the present extent of the word; so that he is justly to be esteemed the true founder of the Scottish monarchy. Besides this war with the Picts, Kenneth is said to have been successful against the Saxons, though of these wars we have very little account. Having reigned 16 years in peace after his subjugation of the Picts, and composed a code of laws for the good of his people, Kenneth died of a fistula, at Fort Teviot, near Duplin in Perthshire. Before his time the seat of the Scots government had been in Argyleshire; but he removed it to Scone, by transferring thither the famous black stone, supposed to be the palladium of Scotland, and which was afterwards carried off by Edward I. of England, and lodged in Westminster abbey.

38 Donald II. An. 859.

Kenneth was succeeded by his brother Donald, who is represented as a man of the worst character; so that the remaining Picts who had fled out of Scotland were encouraged to apply to the Saxons for assistance, promising to make Scotland tributary to the Saxon power after it should be conquered. This proposal was accepted; and the confederates invaded Scotland with a powerful army, and took the town of Berwick; however, they were soon after defeated by Donald, who took their ships and provisions. This capture proved their ruin; for some of the ships being laden with wine, the Scots indulged themselves so much with that liquor, that they became incapable of defending themselves; in consequence of which the confederates, rallying their troops, attacked them in that state of intoxication. The Scots were defeated with excessive slaughter. Twenty thousand of the common soldiers lay dead on the spot; the king and his principal nobility were taken prisoners, and all the country from the Tweed to the Forth became the property of the conquerors. Still, however, the confederates found themselves unable to pursue their victory farther; and a peace was concluded, on condition that the Saxons should become masters of all the conquered country. Thus the Forth and Clyde became the southern boundaries of the Scottish dominions. It was agreed that the Forth should from that time forward be called the *Scots sea;* and it was made capital for any Scotsman to set his foot on English ground. They were to erect no forts near the English confines; to pay an annual tribute of a thousand pounds, and to give up 60 of the sons of their chief nobility as hostages. A mint was erected by the Saxon prince named *Osbreth*, at Stirling; and a cross raised on the bridge at that place, with the following inscription, implying that this place was the boundary between Scotland and England:

39 The Scots defeated by the Saxons.

Anglos à Scotis separat crux ista remotis:
Arma hic stant Bruti, stant Scoti sub hac cruce tuti.

After the conclusion of this treaty, so humiliating to the Scots, the Picts, finding that their interest had been entirely neglected, fled to Norway, while those who remained in England were massacred. Donald shared the common fate of unfortunate princes, being dethroned and shut up in prison, where he at last put an end to his own life in the year 858.—In justice to this unhappy monarch, however, it must be observed, that the character of Donald, and indeed the whole account of these transactions, rests on the credit of a single author, namely Boece; and that other writers represent Donald as a hero, and successful in his wars: but the obscurity in which the whole of this period of Scottish history is involved, renders it impossible to determine any thing satisfactorily concerning these matters.

40 Reign of Constantine. An. 863.

Donald was succeeded by his nephew Constantine, the son of Kenneth Mac Alpin, in whose reign Scotland was first invaded by the Danes, who proved such formidable enemies to the English. This invasion is said to have been occasioned by some exiled Picts who fled to Denmark, where they prevailed upon the king of that country to send his two brothers, Hungar and Hubba, to recover the Pictish dominions from Constantine. These princes landed on the coast of Fife, where they committed the most horrid barbarities, not sparing even the ecclesiastics who had taken refuge in the isle of May at the mouth of the Forth. Constantine defeated one of the Danish armies commanded by Hubba, near the water of Leven; but was himself defeated and taken prisoner by Hungar, who caused him to be beheaded at a place since called the *Devil's Cave*, in the year 874.

41 Scots defeated by the Danes.

This unfortunate action cost the Scots 10,000 men: but the Danes seem not to have purchased their victory very easily, as they were obliged immediately afterwards to abandon their conquest, and retire to their own country. However, the many Danish monuments that are still to be seen in Fife, leave no room to doubt that many bloody scenes have been acted here between the Scots and Danes, besides that above mentioned.

42 Eth. An. 881.

Constantine was succeeded by his brother Eth, surnamed the *Swift-footed*, from his agility. Concerning him we find nothing memorable; indeed the accounts are so confused and contradictory, that it is impossible to form any decisive opinion concerning the transactions of this reign. All agree, however, that it was but short; and that he was succeeded by Gregory the son of Dongal, contemporary with Alfred of England, and that both princes deservedly acquired the name of *Great*.

43 Exploits of Gregory the Great. An. 882.

The Danes at their departure had left the Picts in possession of Fife. Against them Gregory immediately marched, and quickly drove them into the north of England, where their confederates were already masters of Northumberland and York. In their way thither they threw a garrison into the town of Berwick; but this was presently reduced by Gregory, who put to the sword all the Danes, but spared the lives of the Picts. From Berwick, Gregory pursued the Danes into Northumberland, where he defeated them; and passed the winter in Berwick. He then marched against the Cumbrians, who being mostly Picts were in alliance with the Danes. He easily overcame them, and obliged

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ged them to yield up all the lands they had formerly possessed belonging to the Scots, at the same time that he agreed to protect them from the power of the Danes. In a short time, however, Constantine the king of the Cumbrians violated the convention he had made, and invaded Annandale; but was defeated and killed by Gregory near Lochmaben. After this victory Gregory entirely reduced the counties of Cumberland and Westmoreland, which, it is said, were ceded to him by Alfred the Great; and indeed the situation of Alfred's affairs at this time renders such a cession by no means improbable.

We next find Gregory engaged in a war with the Irish, to support Donach, an Irish prince, against two rebellious noblemen. The Irish were the first aggressors, and invaded Galloway; but being repulsed with great loss, Gregory went over to Ireland in person, where the two chieftains, who had been enemies to each other before, now joined their forces in order to oppose the common enemy. The first engagement proved fatal to one of their chiefs named *Brian*, who was killed with a great number of his followers. After this victory Gregory reduced Dundalk and Drogheda. On his way to Dublin he was opposed by a chieftain named *Corneil*, who shared the fate of his confederate, being also killed, and his army entirely defeated. Gregory then became guardian to the young prince whom he came to assist, appointed a regency, and obliged them to swear that they would never admit into the country either a Dane or an Englishman without his consent. Having then placed garrisons in the strongest fortresses, he returned to Scotland, where he built the city of Aberdeen; and died in the year 892, at his castle of Dundore in the Garioch.

44 Donald III. An. 893.

Gregory was succeeded by Donald III. the son of Constantine, who imitated the virtues of his predecessor. The Scots historians unanimously agree that Northumberland was at that time in the hands of their countrymen; while the English as unanimously affirm that it was subject to the Danes, who paid homage to Alfred. Be this as it will, however, Donald continued to live on good terms with the English monarch, and sent him a body of forces, who proved of considerable advantage to him in his wars with the Danes. The reign of Donald was but short; for having marched against some robbers (probably Danes) who had invaded and ravaged the counties of Murray and Ross, he died at Forres soon after, having defeated and subdued them in the year 903. He was succeeded by Constantine III. the son of Eth the Swift-footed, concerning whom the most remarkable particular which we find related is his entering into an alliance with the Danes against the English. The occasion of this confederacy is said to have been, that the English monarch, Edward the Elder, finding the Scots in possession of the northern counties of England, made such extravagant demands on Constantine as obliged him to form an alliance with the Danes in order to preserve his dominions in security. However, the league subsisted only for two years, after which the Danes found it more for their advantage to resume their ancient friendship with the English.

45 Constantine III. enters into an alliance with the Danes against England. An. 904.

As soon as Constantine had concluded the treaty with the Danes, he appointed the presumptive heir to the Scottish crown, Malcolm, or, according to some, Eugene the son of the late king Donald, prince of the southern counties, on condition of his defending them against the attacks of the English. The young prince had soon an opportunity of exerting his valour: but not behaving with the requisite caution, he had the misfortune to be defeated, with the loss of almost all his army, he himself being carried wounded out of the field; and in consequence of this disaster, Constantine was obliged to do homage to Edward for the possessions he had to the southward of the Scots boundary.

In the beginning of the reign of Athelstan the son of Edward the Elder, the northern Danes were encouraged by some conspiracies formed against that monarch to throw off the yoke: and their success was such, that Athelstan thought proper to enter into a treaty with Sithric the Danish chief, and to give him his daughter in marriage. Sithric, however, did not long survive his nuptials; and his son Guthred endeavouring to throw off the English yoke, was defeated, and obliged to fly into Scotland. This produced a series of hostilities between the Scots and English; which in the year 938 brought on a general engagement. At this time the Scots, Irish, Cumbrians, and Danes, were confederated against the English. The Scots were commanded by their king Constantine, the Irish by Anlaff the brother of Guthred the Danish prince, the Cumbrians by their own sovereign, and the Danes by Froda. The generals of Athelstan were Edmund his brother, and Turketil his favourite. The English attacked the entrenchments of the confederates, where the chief resistance which they encountered was from the Scots. Constantine was in the utmost danger of being killed or taken prisoner, but was rescued by the bravery of his soldiers: however, after a most obstinate engagement, the confederates were defeated with such slaughter, that the slain are said to have been *innumerable*. The consequence of this victory was, that the Scots were deprived of all their possessions to the southward of the Forth; and Constantine, quite dispirited with his misfortune, resigned the crown to Malcolm, and retired to the monastery of the Culdees at St Andrews, where he died five years after, in 943.

46 Is utterly defeated by the English.

The distresses which the English sustained in their subsequent wars with the Danes, gave the Scots an opportunity of retrieving their affairs; and in the year 944, we find Malcolm, the successor of Constantine, invested with the sovereignty of Northumberland, on condition of his holding it as a fief of the crown of England, and assisting in defence of the northern border. Soon after the conclusion of this treaty, Malcolm died, and was succeeded by his son Indulfus. In his reign the Danes became extremely formidable by their invasions, which they now renewed with greater fury than ever, being exasperated by the friendship subsisting between the Scots and English monarchs. Their first descent was upon East Lothian, where they were soon expelled, but crossed over to Fife. Here they were a second time defeated, and driven out; and so well had Indulfus taken care to guard the coasts, that they could not find an opportunity of landing; till having seemed to steer towards their own country, the Scots were thrown off their guard, and the Danes on a sudden made good their landing at Cullen, in Banffshire. Here Indulfus soon came up with them, attacked their camp, and drove them towards their ships, but was killed in an ambuscade,

47 Malcolm Macdonald. An. 944.

48 New invasions of the Danes under Indulfus.

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cade, into which he fell during the pursuit. He was succeeded by Duffus, to whom historians give an excellent character; but, after a reign of five years, he was murdered, in the year 965. Duffus was succeeded by Culen the son of Indulfus, who had been nominated prince of Cumberland in his father's lifetime, as heir-apparent to the throne. He is represented as a very degenerate prince; and is said to have given himself up to the grossest sensuality. The people in the mean time were fleeced, in order to support the extravagance and luxury of their prince. In consequence of this, an assembly of the states was convened at Scone for the resettling of the government; but on his way thither Culen was assassinated, near the village of Methven, by Rochard, thane or sheriff of Fife, whose daughter the king had debauched.

49 Kenneth III. a wise and valiant prince. An. 970.

The provocations which Culen had given to his nobility seem to have rendered them totally untractable and licentious; and gave occasion to a remarkable revolution in the reign of Kenneth III. who succeeded Culen. This prince, being a man of great resolution, began with relieving the common people from the oppressions of the nobility, which were now intolerable; and this plan he pursued with so much success, that, having nothing to fear from the great barons, he ordered them to appear before him at Lanark; but the greatest part, conscious of their demerits, did not attend. The king so well dissembled his displeasure, that those who came were quite charmed with his affability, and the noble entertainment he gave them; in consequence of which, when an assembly was called next year, the guilty were encouraged to appear as well as the innocent. No sooner had this assembly met, however, than the place of meeting was beset with armed men. The king then informed them that none had any thing to apprehend excepting such as had been notorious offenders; and these he ordered to be immediately taken into custody, telling them, that their submitting to public justice must be the price of their liberty. They were obliged to accept the king's offer, and the criminals were accordingly punished according to their deserts.

About this time Edgar, king of England, finding himself pressed by the Danes, found means to unite the king of Scotland and the prince of Cumberland with himself in a treaty against the Danes; which gave occasion to a report that Kenneth had become tributary to the king of England. This, however, is utterly denied by all the Scots historians; who affirm that Kenneth cultivated a good correspondence with Edgar, as well because he expected assistance in defending his coasts, as because he intended entirely to alter the mode of succession to the throne. About this time the Danes made a dreadful invasion. Their original intention seems to have been to land on some part of the English coasts; but finding these too well guarded, they landed at Montrose in Scotland, committing everywhere the most dreadful ravages. Kenneth was then at Stirling, and quite unprepared; however, having collected a handful of troops, he cut off many of the enemy as they were straggling up and down, but could not prevent them from besieging Perth. Nevertheless, as the king's army constantly increased, he resolved to give the enemy battle. The scene of this action was at Loncarty, near Perth. The king is said to have offered ten pounds in silver, or the value of it in land, for the head of every Dane which should be brought him; and an immunity from all taxes to the soldiers who served in his army, provided they should be victorious: but, notwithstanding the utmost efforts of the Scots, their enemies fought so desperately, that Kenneth's army must have been totally defeated, had not the fugitives been stopped by a yeoman and his two sons, of the name of *Hay*, who were coming up to the battle, armed with such rustic weapons as their condition in life afforded. Buchanan and Boece inform us, that these countrymen were ploughing in a field hard by the scene of action, and perceiving that their countrymen fled, they loosed their oxen, and made use of the yokes as weapons, with which they first obliged their countrymen to stand, and then annoyed their enemies. The fight was now renewed with such fury on the part of the Scots, that the Danes were utterly defeated; and, after the battle, the king rewarded Hay with the barony of Errol in the Carse of Gowrie, ennobled his family, and gave them an armorial bearing alluding to the rustic weapons with which they had achieved this glorious exploit.

50 Defeats Danes.

51 Rise of family of Errol.

52 Kenneth murdered. An. 994.

In the year 994, Kenneth was murdered at the instigation of a lady named *Fenella*, whose son he had caused to be put to death. The murder was perpetrated in Fenella's castle, where she had persuaded the king to pay her a visit. His attendants waited long near the place; but being at length tired out, they broke open the doors, and found their king murdered: on which they laid the castle in ashes; but Fenella escaped by a postern. The throne was then seized by an usurper named *Constantine*; who, being killed in battle after a reign of a year and a half, was succeeded by Grime, the grandson of king Duffus: and he again was defeated and killed by Malcolm the son of Kenneth, the lawful heir of the Scottish throne. After this victory, however, Malcolm did not immediately assume the sovereignty; but asked the crown from the nobles in consequence of a law passed in the reign of Kenneth, by which the succession to the throne of Scotland became hereditary. This they immediately granted, and Malcolm was accordingly crowned king. He joined himself in strict alliance with the king of England; and proved so successful against the Danes in England, that Sweyn their king resolved to direct his whole force against him by an invasion of Scotland. His first attempt, however, proved unsuccessful; all his soldiers being cut in pieces, except some few who escaped to their ships, while the loss of the Scots amounted to no more than 30 men. But in the mean time, Duncan, prince of Cumberland, having neglected to pay his homage to the king of England, the latter invaded that country in conjunction with the Danes. Malcolm took the field against them, and defeated both; but while he was thus employed in the south, a new army of Danes landed in the north at the mouth of the river Spey. Malcolm advanced against them with an army much inferior in number; and his men neglecting every thing but the blind impulses of fury, were almost all cut to pieces; Malcolm himself being desperately wounded.

53 Malcolm II. An. 100

54 The Scots defeated by the Danes.

By this victory the Danes were so much elated, that they sent for their wives and children, intending to settle in this country. The castle of Nairn, at that time thought almost impregnable, fell into their hands; and the

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the towns of Elgin and Forres were abandoned both by their garrisons and inhabitants. The Scots were everywhere treated as a conquered people, and employed in the most servile offices by the haughty conquerors; who, to render the castle of Nairn, as they thought, absolutely impregnable, cut through the small isthmus which joined it to the land. All this time, however, Malcolm was raising forces in the southern counties; and having at last got an army together, he came up with the Danes at Murtloch, near Balveny, which appears at this day to have been a strong Danish fortification. Here he attacked the enemy; but having the misfortune to lose three of his general officers, he was again obliged to retreat. However, the Danish general happening to be killed in the pursuit, the Scots were encouraged to renew the fight with such vigour, that they at last obtained a complete victory; but suffered so much, that they were unable to derive from it all the advantages which might otherwise have accrued.

55 but defeat them in a second battle.

On the news of this ill success, Sweyn ordered two fleets, one from England, and another from Norway, to make a descent upon Scotland, under the command of Camus, one of his most renowned generals. The Danes attempted to land at the mouth of the Forth; but finding every place there well fortified, they were obliged to move farther northward, and effected their purpose at Redhead in the county of Angus. The castle of Brechin was first besieged; but meeting with a stout resistance there, they laid the town and church in ashes. From thence they advanced to the village of Panbride, and encamped at a place called *Karboddo*. Malcolm in the mean time was at hand with his army, and encamped at a place called *Barr*, in the neighbourhood of which both parties prepared to decide the fate of Scotland; for as Moray and the northern provinces were already in the possession of the Danes, it was evident that a victory at this time must put them in possession of the whole. The engagement was desperate, and so bloody, that the rivulet which proceeds from Loch Tay is said to have had its water dyed with the blood of the slain; but at last the Danes gave way and fled. There was at that time in the army of Malcolm, a young man of the name of *Keith*. He pursued Camus; and having overtaken him, engaged and killed him; but another Scots officer coming up at the same time, disputed with Keith the glory of the action. While the dispute lasted, Malcolm came up; who suffered them to decide it by single combat. In this second combat Keith proved also victorious, and killed his antagonist. The dying person confessed the justice of Keith's claim; and Malcolm dipping his finger in his blood, marked the shield of Keith with three strokes, pronouncing the words *Veritas vincit*, "Truth overcomes," which has ever since been the armorial bearing and motto of the family of Keith. (B)

56 The Danes again defeated.

57 Rise of the family of Keith.

Sweyn, not yet discouraged, sent his son Canute, afterwards king of England, and one of the greatest warriors of that age, into Scotland, with an army more powerful than any that had yet appeared. Canute landed in Buchan; and, as the Scots were much weakened by such a long continued war, Malcolm thought proper to act on the defensive. But the Scots, who now thought themselves invincible, demanded to be led on to a general engagement. Malcolm complied with their desire, and a battle ensued: in which, though neither party had much reason to boast of victory, the Danes were so much reduced, that they willingly concluded a peace on the following terms, viz. That the Danes should immediately depart from Scotland; that as long as Malcolm and Sweyn lived, neither of them should wage war with the other, or help each other's enemies; and that the field in which the battle was fought should be set apart and consecrated for the burial of the dead. These stipulations were punctually fulfilled by Malcolm, who built in the neighbourhood a chapel dedicated to Olaus, the tutelar saint of these northern nations.

58 Another invasion.

59 Peace concluded.

After performing all these glorious exploits, and becoming the second legislator in the Scottish nation, Malcolm is said to have stained the latter part of his reign with avarice and oppression; in consequence of which he was murdered at the age of 80 years, after he had reigned above 30. This assassination was perpetrated while he was on his way to Glammis. His own domestics are said to have been privy to the murder, and to have fled along with the conspirators; but in passing the lake of Forfar on the ice, it gave way with them, and they were all drowned. This account is confirmed by the sculptures upon some stones erected near the spot; one of which is still called *Malcolm's grave-stone;* and all of them exhibit some rude representations of the murder and the fate of the assassins.

60 Malcolm assassinated.

Malcolm was succeeded, in the year 1034, by his grandson Duncan I., but he is said to have had another grandson, the famous Macbeth; though some are of opinion that Macbeth was not the grandson of Malcolm, but of Fenella who murdered Kenneth III. The first years of Duncan's reign were passed in tranquillity, but domestic broils soon took place on the following occasion. We are told by some historians that Banquo, a nobleman of great eminence, acted then in the capacity of steward to Duncan, by collecting his rents; but being very rigid in the execution of his office, he was way-laid, robbed, and almost murdered. Of this outrage Banquo complained as soon as he recovered of his wounds and could appear at court. The robbers were summoned

61 Duncan I. An. 1034.

(B) Mr Gordon, in his *Itinerarium Septentrionale*, observes, that in all probability the Scots gained two victories over the Danes on the present occasion; one near the place called *Karboddo*, already mentioned; and the other at Aberlemno, four miles from Brechin. At both places there are monuments with rude sculptures, erected most probably in memory of a victory. That at Karboddo is called *Camus's cross;* near which, somewhat more than a century ago, a large sepulchre, supposed to be that of Camus, was discovered. It consisted of four great stones; and had in it a huge skeleton, supposed to be that of the Danish prince. The fatal stroke seemed to have been given him on the back part of the head; a considerable portion of the skull being cut away, probably by the stroke of the sword.

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summoned to surrender themselves to justice; but instead of obeying, they killed the messenger. Macbeth represented this in such strong terms, that he was sent with an army to reduce the insurgents, who had already destroyed many of the king's friends. This commission he performed with such success, that the rebel chief put an end to his own life; after which Macbeth sent his head to the king, and then proceeded with the utmost severity against the insurgents.

62 A new invasion by the Danes;

This insurrection was scarcely quelled, when the Danes landed again in Fife; and Duncan put himself at the head of an army, having the thanes Macbeth and Banquo serving under him. The Danes were commanded by Sweyn king of Norway, and eldest son of Canute. He proceeded with all the barbarity natural to his nation, putting to death men, women, and children, who fell in his way. A battle was fought between the two nations near Culross, in which the Scots were defeated: but the Danes purchased their victory so dearly, that they could not improve it; and Duncan retreated to Perth, while Macbeth was sent to raise more forces. In the mean time Sweyn laid siege to Perth, which was defended by Duncan and Banquo. The Danes were so much distressed for want of provisions, that they at last consented to treat for peace, provided the pressing necessities of the army were relieved. The Scots historians inform us, that this treaty was set on foot in order to amuse Sweyn, and gain time for the stratagem which Duncan was preparing. This was no other than a barbarous contrivance of infusing intoxicating herbs into the liquors that were sent along with the other provisions to the Danish camp. These soporifics had the intended effect; and while the Danes were under their influence, Macbeth and Banquo broke into their camp, where they put all to the sword, and it was with difficulty that some of Sweyn's attendants carried him on board; and we are told that his was the only ship of all the fleet that returned to Norway. It was not long, however, before a fresh body of Danes landed at Kinghorn in the county of Fife: but they were entirely defeated by Macbeth and Banquo. Such of the Danes as escaped fled to their ships; but before they departed they obtained leave to bury their dead in Inchcolm, a small island lying in the Forth, where one of their monuments is still to be seen.

63 who are defeated.

Thus ended the formidable invasion of the Danes; after which Duncan applied himself to the administration of justice, and to reform the manners of his subjects.

64 Duncan murdered by Macbeth.

While he was thus exerting himself for the good of his subjects, his general, Macbeth, who had been so much distinguished in the Danish wars, was plotting the assassination of the king, and the usurpation of the throne. To these purposes, it appears, Macbeth was instigated by his wife, the lady Gruoch, daughter of Kenneth IV., who, as we have seen, was slain by Malcolm II., the grandfather of Duncan. This lady had been married to Gilcomgain, the maormor of Murray, and after his death had espoused Macbeth, the maormor of Ross. This account of Lay Macbeth shows that it was a spirit of revenge for the murder of her grandfather, which prompted her to instigate her husband to the assassination of Duncan. This assassination took place in 1039, not near Inverness, as related by Shakespeare and the historians whom he has copied, but at Bathgowanan, near Elgin, within the territory of Gruoch. Duncan left two infant sons, Malcolm and Donald, of whom the former, on the death of his father, fled to Cumberland, and the latter found an asylum in the Western Islands. Macbeth having thus gratified his wife's revenge, and his own ambition, took possession of the vacant throne.

65 Reign of Macbeth. An. 1039.

During the greater part of the reign of the usurper, Malcolm, the true heir to the crown of Scotland, kept within his principality of Cumberland, without any thoughts of ascending his father's throne. Macbeth for some time governed with moderation, but at last became a tyrant.

Among the numerous fables with which the story of Macbeth has been decked, must be ranked the murder of Banquo, and the escape of his son Fleance, the supposed primogenitor of the house of Stewart. History knows nothing of Banquo the thane of Lochaber, nor of Fleance his son. None of the ancient chronicles nor Irish annals, nor even Fordoun, recognize the names of Banquo and Fleance, though the latter be made by genealogists the root and father of many kings. Nor is a thane of Lochaber known in Scottish history, because the Scottish kings had never any demesnes within that impervious district. *

* *Chalmers' Caledonia*, vol. i. p. 412.

66 Macbeth driven out.

Macduff, the thane of Fife, was the most powerful person in Scotland; for which reason, Macbeth determined to destroy him. On this Macduff fled to France; and Macbeth cruelly put to death his wife, and children who were yet infants, and sequestered his estate. Macduff vowed revenge, and encouraged Malcolm to attempt to dethrone the tyrant. Macbeth opposed them with his whole force; but being defeated in a pitched battle, he took refuge in the most inaccessible places of the Highlands, where he defended himself for two years; but in the mean time Malcolm was acknowledged king of Scotland, and crowned at Scone.

67 and killed.

The war between Macbeth and the new king continued for two years after the coronation of the latter; but at last he was killed in a sally by Macduff, at Lumphanan, on the 5th of Dec. 1056. However the public tranquillity did not end with his life. His followers elected one of his kinsmen named *Lullach*, surnamed the *Idiot*, to succeed him; but he not being able to withstand Malcolm, withdrew to the north, where being pursued, he was killed at Essey in Strathbogie, after a reign of four months.

68 Malcolm III. established on the Scottish throne. An. 1056.

Malcolm being now established on the throne, began with rewarding Macduff for his great services; and conferred upon his family four extraordinary privileges: 1. That they should place the king in his chair of state at the coronation. 2. That they should lead the van of all the royal armies. 3. That they should have a regality within themselves: and, 4. That if any of Macduff's family should happen to kill a nobleman unpremeditately, he should pay 24 marks of silver, and, if a plebeian, 12. The king's next care was to reinstate in their fathers possessions all the children who had been disinherited by the late tyrant; which he did in a convention of his nobles held at Forfar. In the time of William the Conqueror, we find Malcolm engaged in a dangerous war with England, the occasion of which was as follows. On the death of Edward the Confessor, Harold seized the throne of England, to the prejudice of

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of Edgar Atheling the true heir to the crown. However, he created him earl of Oxford, and treated him with great respect; but on the defeat and death of Harold, William discovered some jealousy of Edgar. Soon after, William having occasion to pay a visit to his dominions in Normandy, he appointed Edgar Atheling to attend him, along with some other noblemen whom he suspected to be in his interest; but on his return to England, he found the people so much disaffected to his government, that he proceeded with great severity, which obliged great numbers of his subjects to take refuge in Cumberland and the southern parts of Malcolm's dominions. Edgar had two sisters, Margaret and Christina: these, with his two chief friends, Gospatric and Marteswin, soon made him sensible how precarious his life was under such a jealous tyrant, and persuaded him to make preparations for flying into Hungary, or some foreign country. Edgar accordingly set sail with his mother Agatha, his two sisters, and a great train of Anglo-Saxon noblemen; but by stress of weather was forced into the frith of Forth, where the illustrious exiles landed at the place since that time called the *Queen's Ferry*. Malcolm no sooner heard of their landing than he paid them a visit in person; and at this visit he fell in love with the Princess Margaret. In consequence of this, the chief of Edgar's party repaired to the court of Scotland. William soon made a formal demand of Edgar; and, on Malcolm's refusal, declared war against him.

69 Entertains Edgar, an English prince.

70 War between Scotland and England.

William was the most formidable enemy whom the Scots had ever encountered, as having not only the whole force of England, but of Normandy, at his command. However, as he had tyrannized most unmercifully over his English subjects, they were much more inclined to assist his enemies than their own prince; and he even found himself obliged to give up the county of Northumberland to Gospatric, who had followed Edgar, upon condition of his making war on the Scots. This nobleman accordingly invaded Cumberland; in return for which Malcolm ravaged Northumberland in a dreadful manner, carrying off an immense booty, and inviting at the same time the Irish and Danes to join him.

71. England invaded.

By this time William had taken from Gospatric the earldom of Northumberland, and given it to Robert Cummin one of his Norman barons; but the Northumbrians having joined Gospatric, and received the Danes as their countrymen, murdered Cummin and all his followers at Durham, where they had been guilty of great cruelties. After this they laid siege to the forts built by William in Yorkshire; but not being able to reduce them, the English, Scots, and Danes united their forces, took the city of York, and put to the sword three thousand Normans who were there in garrison; and this success was followed by many incursions and ravages, in which the Danes and Northumbrians acquired great booty. It soon appeared, however, that these allies had the interest of Edgar no more at heart than the Irish; and that all the dependence of this forlorn prince was upon Malcolm, and the few Englishmen who had followed his fortune: for the booty was no sooner obtained, than the Danes retired to their ships, and the Northumbrians to their habitations, as if they had been in perfect safety. But in the mean time William, having raised a considerable army, advanced northwards. He first inflicted a severe revenge upon the Northumbrians; then he reduced the city of York, and put to death all the inhabitants; and perceiving that danger was still threatened by the Danes, he bribed them with a sum of money to depart to their own country.

Malcolm was now left alone to encounter this formidable adversary; and, finding himself unable to oppose so great a force, withdrew to his own dominions, where he remained for some time on the defensive, but not without making great preparations for once more invading England. His second invasion took place in the year 1071, while William was employed in quelling an insurrection in Wales. He is said at this time to have behaved with the greatest cruelty. He invaded England by Cumberland; ravaged Teesdale; and at a place called *Hundreds-keld*, he massacred some English noblemen, with all their followers. Thence he marched to Cleveland in the north riding of Yorkshire; which he also ravaged with the utmost cruelty, sending back the booty with part of his army to Scotland: after which he pillaged the bishoprie of Durham, where he is said not to have spared the most sacred edifices, but to have burnt them to the ground. In the mean time Gospatric, to whom William had again ceded Northumberland, attempted to make a diversion in his favour, by invading Cumberland: but being utterly defeated by Malcolm, he was obliged to shut himself up in Bamborough castle; while Malcolm returned in triumph with his army to Scotland, where he married the princess Margaret.

72 A second invasion.

73 William the Conqueror invades Scotland.

The next year William, having greatly augmented his army, invaded Scotland in his turn. The particulars of the war are unknown; but it certainly ended much to the disadvantage of the Scots, as Malcolm agreed to pay him homage. The English historians contend that this homage was for the whole of his dominions; but the Scots with more reason affirm, that it was only for those he possessed in England. On the conclusion of the peace, a cross was erected at Stanmore in Richmondshire, with the arms of both kings, to serve as a boundary between the possessions of William and the feudal dominions of Malcolm. Part of this monument, called *Re-cross*, or rather *Roy-cross*, or *The cross of the kings*, was entire in the days of Camden.

This peace between Malcolm Canmore and William produced the greatest alteration in the manners of the Scots. What contributed chiefly to this was the excellent disposition of Queen Margaret; who was, for that age, a pattern of piety and politeness: and next to this was the number of foreigners who had settled in Scotland; among whom were some Frenchmen, who laid the foundation of that friendship with the Scots which lasted for ages. Malcolm himself also, though by his ravages in England he seems naturally to have been a barbarian, was far from being averse to a reformation, and even set the example himself. During her husband's absence in England, Queen Margaret had chosen for her confessor one Turgot, whom she also made her assistant in her intended reformation. She began with new-modelling her own court; into which she introduced the offices, furniture, and manner of living, common among the more polite nations of Europe. She dismissed from her service all those who were noted for immorality and impiety; and charged Turgot, on

74 Reformation set on foot by the king and queen of Scotland.

Scotland. pain of her displeasure, to give his real sentiments on the state of the kingdom, after the best inquiry he could make. By him she was informed, that faction reigned among the nobles, rapine among the commons, and incontinence among all degrees of men. Above all, he complained that the kingdom was destitute of a learned clergy, capable of reforming the people by their example and doctrine. All this the queen represented to her husband, and prevailed upon him to set about the work of reformation immediately. In this, however, he met with considerable opposition. The Scots, accustomed to oppress their inferiors, thought all restrictions of their power so many steps towards their slavery. The introduction of foreign offices and titles confirmed them in this opinion; and such a dangerous insurrection happened in Moray and some of the northern counties, that Malcolm was obliged to march against the rebels in person. He found them, indeed, very formidable; but they were so much intimidated by his resolution, that they intreated the clergy who were among them to intercede with the king in their favour. Malcolm received their submission, but refused to grant an unconditional pardon. He gave all the common people indeed leave to return to their habitations, but obliged the higher ranks to surrender themselves to his pleasure. Many of the most guilty were put to death, or condemned to perpetual imprisonment; while others had their estates confiscated. This severity checked the rebellious spirit of the Scots, and Malcolm returned to his plans of reformation. Still, however, he found himself opposed, even in those abuses which were most obvious and glaring. He durst not entirely abolish that infamous practice of the landlord claiming the first night with his tenant's bride; though, by the queen's influence, the privilege was changed into the payment of a piece of money by the bridegroom, and was afterwards known by the name of *merchata mulierum*, or "the women's merk." In those days the Scots had not the practice of saying grace after meals, till it was introduced by Margaret, who gave a glass of wine, or other liquor, to those who remained at the royal table and heard the thanksgiving; which expedient gave rise to the term of the *grace-drink*. Besides this, the terms of the duration of Lent and Easter were fixed; the king and queen bestowed large alms on the poor, and the latter washed the feet of six of their number; many churches, monasteries, &c. were erected, and the clerical revenues augmented. Notwithstanding these reformations, however, some historians have complained, that, along with the manners of the English and French, their luxuries were also introduced. Till this reign the Scots had been remarkable for their sobriety and the simplicity of their diet: which was now converted into excess and riot, and sometimes ended fatally by quarrels and bloodshed. We are told, at the same time, that even in those days the nobility ate only two meals a-day, and were served with no more than two dishes at each meal.

75 England again invaded. An. 1079.

In the year 1079, Malcolm again invaded England; but upon what provocation, or with what success, is not well known. But in 1088, after the death of the Conqueror, he again espoused the cause of Edgar Atheling, who had been reduced to implore his assistance a second time, when William Rufus ascended the throne of England. At the time of Edgar's arrival, Malcolm was at the head of a brave and well disciplined army, with which he penetrated a great way into the country of the enemy; and, as is said, returned to Scotland with an immense booty. William resolved to revenge the injury, and prepared great armaments both by sea and land for the invasion of Scotland. His success, however, was not answerable to the greatness of his preparations. His fleet was dashed to pieces by storms, and almost all on board of it perished. Malcolm had also laid waste the country through which his antagonist was to pass, so effectually, that William lost a great part of his troops by fatigue and famine; and when he arrived in Scotland, found himself in a situation very little able to resist Malcolm, who was advancing against him with a powerful army. In this distress, Rufus had recourse to Robert de Moubray earl of Northumberland, who dissuaded him from hazarding a battle, but advised him to open a negociation by means of Edgar and the other English noblemen who resided with Malcolm. Edgar undertook the negociation, on condition of his being restored to his estates in England; but met with more difficulty than he imagined. Malcolm had never yet recognized the right of William Rufus to the throne of England, and therefore refused to treat with him as a sovereign prince; but offered to enter into a negociation with his brother Robert. The two princes accordingly met; and Malcolm, having shown Robert the disposition of his army, offered to cut off his brother William, and to pay to him the homage he had been accustomed to pay to the Conqueror for his English dominions. But Robert generously answered, that he had resigned to Rufus his right of primogeniture in England; and that he had even become one of William's subjects, thereby accepting of an English estate. An interview with William then followed; in which it was agreed that the king of England should restore to Malcolm all his southern possessions, for which he should pay the same homage he had been accustomed to do to the Conqueror; that he should restore to Malcolm 12 disputed manors, and give him likewise 12 merks of gold yearly, besides restoring Edgar to all his English estates.

76 The English army in great danger.

77 Peace concluded.

This treaty was concluded in Lothian, according to the English historians; but at Leeds in Yorkshire, according to the Scots. However, the English monarch looked upon the terms to be so very dishonourable, that he resolved not to fulfil them. Soon after his departure, Edgar and Robert began to press him to fulfil his engagements; but receiving only evasive answers, they passed over into Normandy. After their departure, William applied himself to the fortification of his northern boundaries, especially Carlisle, which had been destroyed by the Danes 200 years before.—As this place lay within the feodal dominions of Malcolm, he complained of William's proceeding, as a breach of the late treaty; and soon after repaired to the English court at Gloucester, that he might have a personal interview with the king of England, and obtain redress. On his arrival, William refused him admittance to his presence, without paying him homage. Malcolm offered this in the same manner as had been done by his predecessors, that is, on the confines of the two kingdoms; but this being rejected by William, Malcolm returned to Scotland, and prepared again for war.

78 Hostilities recommenced.

The first of Malcolm's military operations now proved fatal to him; but the circumstances of his death are variously

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variously related. It is generally believed that while prosecuting the siege of Alnwick in Northumberland, he was surprised by Earl Moubray, by whom it was defended, and slain, together with his eldest son Edward, on the 19th November, 1093. Queen Margaret, who was at that time lying ill in the castle of Edinburgh, died four days after husband.

79 Malcolm killed at the siege of Alnwick castle.

80 The throne usurped by Donald Bane. An. 1093.

After the death of Malcolm Canmore, the throne was usurped by his brother Donald Bane; who, notwithstanding the great virtues and glorious achievements of the late king, had been at the head of a strong party during the whole of his brother's reign. The usurper, giving way to the barbarous prejudices of himself and his countrymen, expelled from the kingdom all the foreigners whom Malcolm had introduced, and obliged them to take refuge in England. Edgar himself had long resided at the English court, where he was in high reputation; and, by his interest there, found means to rescue his nephew, young Edgar, the king of Scotland's eldest surviving son, out of the hands of the usurper Donald Bane. The favour which he showed him, however, produced an accusation against himself, as if he designed to adopt young Edgar as his son, and set him up as a pretender to the English throne. This accusation was preferred by an Englishman whose name was *Orgar*; but as no legal proofs of the guilt could be obtained, the custom of the times rendered a single combat between the parties unavoidable. Orgar was one of the strongest and most active men in the kingdom; but the age and infirmities of Edgar allowed him to be defended by another. For a long time none could be found who would enter the lists with this champion; but at last one Godwin of Winchester, whose family had been under obligations to Edgar or his ancestors, offered to defend his cause. Orgar was overcome and killed: and, when dying, confessed the falsehood of his accusation. The conqueror obtained all the lands of his adversary, and William lived ever afterwards on terms of the strictest friendship with Edgar.

81 A single combat.

This combat, trifling as it may seem to us, produced very considerable effects. The party of Edgar and his brothers (who had likewise taken refuge at the English court) revived in Scotland, to such a degree, that Donald was obliged to call in the Danes and Norwegians to his assistance. In order to engage them more effectually to his interest, the usurper yielded up to them the Orkney and Shetland islands; but when his new allies came to his assistance, they behaved in such a manner as to become more intolerable to the Scots than ever the English had been. The discontent was greatly increased when it was found that William designed to place on the throne of Scotland a natural son of the late Malcolm, named *Duncan*, who had served in the English armies with great reputation. Donald attempted to maintain himself on the throne by the assistance of his Norwegian allies; but, being abandoned by the Scots, he was obliged to fly to the isles, in order to raise more forces; and in the mean time Duncan was crowned at Scone with the usual solemnity.

82 Donald yields up the Orkney and Shetland islands to the Danes.

The Scots were now greatly distressed by two usurpers who contended for the kingdom, each of them supported by a foreign army. One of them, however, was soon despatched. Malpedir, thane of Mearns, surprised Duncan in the castle of Monteith, and killed him; after which he replaced Donald on the throne. The affection of the Scots, however, was by this time entirely alienated from Donald, and a manifest intention of calling in young Edgar was shown. To prevent this, Donald offered the young prince all that part of Scotland which lay to the southward of the Forth; but the terms were rejected, and the messengers who brought them were put to death as traitors. The king of England also, dreading the neighbourhood of the Norwegians, interposed in young Edgar's favour, and gave Atheling the command of an army in order to restore his nephew. Donald prepared to oppose his enemies with all the forces he could raise; but was deserted by the Scots and obliged to fly; his enemies pursued him so closely, that he was soon taken; and being brought before Edgar, he ordered his eyes to be put out, condemning him at the same time to perpetual banishment, in which he died some time after.

83 Donald deposed by Edgar.

With Donald Bane may be said to have terminated the line of Scoto-Irish kings, which had filled the throne of Scotland from the invasion of Fergus in 506, to the year 1097, the date of Donald Bane's defeat, comprehending a period of 591 years. Edgar the new monarch was of Saxon descent, and as in his person a new dynasty commenced, it may be proper to take a brief survey of the state of Scotland on his accession, or at the close of the 11th century.

84 State of Scotland at the close of the 11th century.

We have seen that from the time of Kenneth II. the Picts were either expelled from Scotland, or had been gradually incorporated with the Scoto-Irish tribes. At the period of which we are now treating, Scotland was subdivided into 13 districts, viz. those of Lothian, Galloway, Strathcluid, Fife, Strathearn, Athol, Angus, Mœrn or Mearns, the extensive district between the Dee and the Spey, comprehending Aberdeen and Banff, and the districts of Murray, Argyle, Ross, and Sutherland. Most of these districts possessed within themselves, an independent authority, exercised by the thane. The clans of the distinct districts possessed rights which the regal power could scarcely controul: they were governed by their own customs, and the king could neither appoint nor displace their chieftains. The notion of a body politic having an acknowledged authority to make laws, which every individual and every district were bound to obey, was scarcely known. The kings and the maormors were so independent of each other in their respective stations, that the power of the superior over his vassal was but little felt, though it was acknowledged, and was often resisted, because it could not easily be enforced. The same law which directed the succession of the kings, operated equally, and with similar effects, in the succession of every chieftain. The custom called *tanistry*, already explained in N° 32, was the common law of North Britain throughout the Scoto-Irish period. The Brehons continued to be judges throughout every district of Scotland, and were regulated in their judicial proceedings, by the common customs of the country, and the usual manners of the times.

85 Manners and customs.

One of the most singular customs introduced by the Scoto-Irish colonists, and which prevailed for many succeeding ages, was the use of slug-horns, or war-cries. Each clan had its appropriate slug-horn. Thus, that of the Mackenzies was *Tulloch-ard*, or the high hill; that of the Grants, *Craig-dhuchie*, rock of alarm. Often they

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they were simply the name of the clan, as *A Home, A Home*, for the family of Hume; *A Douglas, A Douglas*, for that of Douglas. At this time the nobility used no armorial bearings, which we are assured were not adopted before the reign of William the Lion, on whose escutcheon the lion rampant first appeared as a national badge. Neither seals nor coins appear to have been in use, but all commerce consisted in barter.

86 Reign of Edgar. An. 1097.

Edgar was son of Malcolm Canmore by Margaret, an Anglo-Saxon princess, and was still very young when he ascended the Scottish throne. The education which he had received from his mother, the experience which he had acquired under the English government in Northumberland, the establishment of his authority over North Britain by the power of that government, all induced him to imitate the English rather than the Scottish customs, during his feeble administration.

He had scarcely ascended the throne of his father when Magnus, the enterprising king of Norway, appeared in the surrounding seas, in order to compel the submission of his subjects in the Orkneys and Hebudes, and to plunder or overawe the inhabitants of the neighbouring shores of England, of Man, and of Ireland. Had Magnus attempted a descent on the coast of Scotland, he would probably have met with little opposition from Edgar, in whom the appearance of the Norwegian prince appears to have excited considerable apprehension. From this, however, he was relieved by the death of Magnus, in 1103. Three years before had died William Rufus, whom Edgar considered as a benefactor; and in the same year, his sister Matilda had been married to Henry I. Thus, both from prudence and policy, Edgar avoided all disputes with England, and either his interest or his weakness prevented him from interfering with the then embroiled state of the European continent. He paid considerable attention to the internal regulation of his kingdom, especially in ecclesiastical matters. He conferred on the monks of St Cuthbert at Durham, many churches and lands near Berwick; and he bestowed the church of Portmoak in Kinross, on the Culdees, and that of Gellold on the monks of Dunfermling. It does not appear, however, that in this religious age he founded any remarkable religious house. He died at Dun-Edin without issue, on the 8th of January 1106, having reigned nine years. He has been characterised as an amiable man, who formed himself on the model of Edward the Confessor, of England. From the silence of history we may infer that his reign was barren of events; and from the feebleness of his character, we may conclude that his authority was scarcely recognised within the largest portion of his kingdom.

87 Alexander I. An. 1107.

Edgar was succeeded by his brother Alexander I. surnamed the *Fierce* from the impetuosity of his temper. On his accession to the throne, however, the Scots were so ignorant of his true character, on account of his appearance of piety and devotion, that the northern parts of the kingdom were soon filled with ravages and bloodshed, by reason of the wars of the chieftains with each other. Alexander immediately raised an army, and marching into Moray and Ross-shire, attacked the insurgents separately; and having subdued them all, he put great numbers of them to death. He then prepared to reduce the exorbitant power of the nobles, and to deliver the people from the oppression under which they groaned. A remarkable instance of this appeared on his return from the expedition just now mentioned. In passing through the Mearns, he met with a widow, who complained that her husband and son had been put to death by the young earl their superior. Alexander immediately alighted from his horse, and swore that he would not remount him till he had inquired into the justice of the complaint; and, finding it to be true, the offender was hanged on the spot. These vigorous proceedings prevented all attempts at open rebellion; but produced many conspiracies among the profligate part of his private subjects, who had been accustomed to live under a more remiss government. The most remarkable of these took place while the king was engaged in building the castle of Baledgar, so called in memory of his brother Edgar, who had laid the foundation stone. It was situated in the Carse of Gowrie, which, we are told, had formerly belonged to Donald Bane, but afterwards came to the crown, either by donation or forfeiture. The conspirators bribed one of the king's chamberlains to introduce them at night into the royal bed-chamber: but Alexander, alarmed at the noise, drew his sword, and killed six of them; after which, by the help of a knight named *Alexander Carron*, he escaped the danger, by flying into Fife. The conspirators chiefly resided in the Mearns, to which Alexander once more repaired at the head of an army; but the rebels retreated northwards, and crossed the Spey. The king pursued them across that river, defeated them, and brought to justice all that fell into his hands. In this battle, Carron distinguished himself so eminently, that he obtained the name of *Skrimgeour* or *Skrimzeour*; which indeed is no more than the English word *skirmisher* or *fighter*.

88 Administers justice rigidly.

89 Narrowly escapes assassins.

90 His exploits in England.

The next remarkable transaction of Alexander's reign, as recorded by the English historians, was his journey into England, where he paid a visit to Henry I. whom he found engaged in a war with the Welsh. Alexander, in virtue of the fealty which he had sworn for his English possessions, readily agreed to lead an army into Wales. There he defeated one of the chieftains, and reduced him to great straits; but could not prevent him from escaping to Griffith prince of North Wales, with whom he was closely allied. Henry also marched against the enemy, but with much worse success than Alexander. Alexander died in 1124, after a reign of seventeen years; and was buried at Dunfermline.

91 Wars of King David with the English. An. 1124.

This prince, dying a bachelor, was succeeded by his younger brother David; who interfered in the affairs of England, and took part with the empress Maud in the civil war which she carried on with Stephen. In 1136, David met his antagonist at Durham; but as neither party chose to hazard an engagement, a negociation took place, and a treaty was concluded. This, however, was observed but for a short time; for, in the following year, David again invaded England, on some frivolous pretence. He defeated Stephen at Roxburgh; and forced him to retreat precipitately, after losing one half of his army. Next year he renewed his invasion; and, though he himself was a man of great mildness and humanity, he suffered his troops to commit such outrages, as firmly united the English in opposition to him. His grandnephew William cut in pieces the vanguard of the English army at Clithero; after which he ravaged the country with such cruelty, that the inhabitants became exasperated beyond measure against him. New associations

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associations were entered into against the Scots; and the English army receiving great reinforcements from the southwards, advanced to Northallerton, where the famous standard was produced. The body of this standard was a kind of box which moved upon wheels, from which arose the mast of a ship surmounted by a silver cross, and round it were hung the banners of St Peter, St John de Beverly, and St Wilfred. Standards of this kind were common at that time on the continent of Europe; and so great confidence had the English in this standard, that they now thought themselves invincible. They had, however, a much more solid ground of confidence, as being much better armed than their antagonists. The armies met at a place called *Culton Moor*. The first line of the Scots army was composed of the inhabitants of Galloway, Carric, Kyle, Cunningham, and Renfrew. The second line consisted of the Lothian men, by which we are to understand the king's subjects in England as well as the south of Scotland, together with the English and Normans of Maud's party. The third line was formed of the clans under their different chieftains; but who were subject to no regular command, and were always impatient to return to their own country when they had acquired any booty. The English soldiers having ranged themselves round their standard, dismounted from their horses, in order to avoid the long lances which the first line of the Scots army carried. Their front-line was intermixed with archers; and a body of cavalry, ready for pursuit, hovered at some distance. The Scots, besides their lances, made use of targets; but, when the English closed with them, they were soon disordered and driven back upon the centre, where David commanded in person. His son made a gallant resistance, but was at last forced to yield: the last line seems never to have been engaged. David, seeing the victory decided against him, ordered some of his men to save themselves by throwing away their badges, which it seems Maud's party had worn, and mingling with the English; after which he himself, with his shattered forces, retreated towards Carlisle. The English historians say, that in this battle the Scots were totally defeated, with the loss of 10,000 men; but this seems not to be the case, as the English did not pursue, and the Scots were in a condition for carrying on the war next year. However, there were now no great exploits performed on either side; and a peace was concluded, by which Henry prince of Scotland was put in possession of Huntingdon and Northumberland, and took an oath of fealty to Stephen. David continued faithful to his niece the empress as long as he lived; and died at Carlisle in the year 1153, after a glorious reign of rather more than 29 years.

92 Battle of the Standard. An. 1138.

93 The Scots entirely defeated.

94 Malcolm IV. An. 1153.

David was succeeded by his grandson Malcolm IV. surnamed the *Maiden*, on account of his continence. He appears to have been a weak and superstitious prince, and died of a depression of spirits in the year 1165. He was succeeded by his brother William I. who immediately entered into a war with Henry II. of England, on account of the earldom of Northumberland, which had been given up by Malcolm: but Henry, finding his affairs in a very embarrassed situation, consented to yield up this county, on William's paying him homage, rather than continue the miseries of war. In 1172, he attempted to avail himself of the unnatural wars which Henry's sons carried on against their father, and invaded England. He divided his army into three columns: the first of which laid siege to Carlisle; the second the king in person led into Northumberland; and the king's brother, David, advanced with the third into Leicestershire. William reduced the castles of Burgh, Appleby, Warkworth, and Garby; and then joined that division of his army which was besieging Carlisle. The place was already reduced to such straits, that the governor had agreed to surrender it by a certain day, provided it was not relieved before that time: on which the king, leaving some troops to continue the siege, invested a castle with some of the forces he had under his command, at the same time sending a strong reinforcement to his brother David; by which means he himself was left with a very small army, when he received intelligence that a strong body of English under Robert de Stuteville and his son were advancing to surprise him.—William, sensible of his inability to resist them, retired to Alnwick, to which he instantly laid siege; but in the mean time acted in such a careless and unthinking manner, that his enemies actually effected their designs. Having dressed a party of their soldiers in Scots habits, they took the king himself prisoner, and carried him, with his feet tied under the belly of a horse to Richmond Castle. He was then conveyed in chains before Henry to Northampton, and ordered to be transported to the castle of Falaise in Normandy, where he was shut up with other state prisoners. Soon after this an accommodation took place between Henry and his sons; and the prisoners on both sides were set at liberty, William only excepted, who bore his confinement with great impatience. Of this Henry took the advantage to make him pay homage for the whole kingdom of Scotland, and acknowledge that he held it only as a feu of the crown of England; and, as a security, he was obliged to deliver into the hands of Henry all the principal forts in Scotland, viz. the castles of Roxburgh, Berwick, Jedburgh, Edinburgh, and Stirling; William at the same time agreeing to pay the English garrisons which were put into these castles. David, the king's brother, with 20 barons, who were present at the signing of this shameful convention, were put into the hands of Henry as hostages for William's good faith; after which the king was set at liberty, and returned to Scotland.

95 William I. engages in a war with Henry II. of England. An. 1165.

96 He is taken prisoner by the English, and obliged to do homage for his kingdom.

The affairs of Scotland were now in the greatest confusion. The people of Galloway, at the head of whom were two chiefs called *Othred* and *Gilbert*, had taken the opportunity of asserting their independency on the crown of Scotland; and, having expelled all the Scots officers out of the country, they demolished all the forts which William had erected in their country, and put to death all the foreigners. But in the mean time a quarrel ensuing between the two chiefs, Othred was murdered by Gilbert, who immediately applied to Henry for protection.

Henry, in order to give all possible sanction to the convention betwixt him and William, summoned him to meet him and his son at York. William obeyed the summons, and along with him appeared all the great nobility and landholders; who confirmed the convention of Falaise, swore fealty to Henry, and put themselves and their country under his protection. In the mean time, Gilbert, who was at the head of the rebels in Galloway, had offered to place himself and his people

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under the protection of the king of England, and to pay to Henry 2000 merks of silver yearly, with 500 cows and as many hogs, by way of tribute: Henry, however, that he might oblige his new feudatory William, refused to have any concern in the affair. On this, William ordered his general Gilchrist to march against him: which he did with such success, that Gilbert was entirely defeated, and Galloway again reduced under the dominion of Scotland. Very soon after this victory, Gilchrist fell under the king's displeasure on the following occasion. He had married Matilda, sister to William; and on suspicion, or proof, of her incontinence, put her to death at a village called *Maynes*, near Dundee. The king being highly displeased at such a gross affront to himself, summoned Gilchrist to take his trial for the murder: but as the general did not choose to make his appearance, his estates were confiscated, his castles demolished, and he himself sent into exile. He took refuge in England; but as it had been agreed in the convention between William and Henry that the one should not harbour the traitorous subjects of the other, Gilchrist was forced to return to Scotland with his two sons. There they were exposed to all the miseries of indigence, and the perpetual fear of being discovered, so that they were obliged to skulk from place to place. William, on his return from an expedition against an usurper whom he had defeated, happened to observe three strangers, who, though disguised like rustics, appeared by their noble mien to be above the vulgar rank. William, who first discovered them, was confirmed in this apprehension, by seeing them strike out of the high road, and endeavour to avoid notice. He ordered them to be seized and brought before him. The oldest, who was Gilchrist himself, fell upon his knees before him, and gave such a detail of his misfortunes as drew tears from the eyes of all present; and the king restored him to his former honours and estates. From the family of this Gilchrist that of the Ogilvies is said to be descended.

97 Adventures of William's general, Gilchrist.

98 Origin of the family of Ogilvy.

The Scots continued to be in subjection to the English till the accession of Richard I. This monarch being a man of romantic valour, zealously undertook an expedition into the Holy Land against the Turks, in conformity with the superstition of the times. That he might secure the quiet of his dominions in his absence, he determined to make the king of Scotland his friend; and for this purpose, he thought nothing could be more acceptable than releasing him and his subjects from that subjection which even the English themselves considered as forced and unjust. However, he determined not to lose this opportunity of supplying himself with a sum of money, which could not but be absolutely necessary in such an expensive and dangerous undertaking. He therefore made William pay him 10,000 merks for this release: after which he entered into a convention still extant; in which he acknowledges, that "all the conventions and acts of submission from William to the crown of England had been extorted from him by unprecedented writings and duresse." This transaction happened in the year 1189.

99 William released from his homage by Richard I.

An. 1189.

The generosity of Richard met with a grateful return from William; for when Richard was imprisoned by the emperor of Germany in his return from the Holy Land, the king of Scotland sent an army to assist the regency against his rebellious brother John, who had wickedly usurped the throne of England. For this Richard acknowledged his obligation in the highest degree; but William afterwards made this an excuse for such high demands as could not be complied with. Nevertheless, the two monarchs continued in friendship as long as Richard lived. Some differences happened with King John about the possession of Northumberland and other northern counties: but these were all finally adjusted to the mutual satisfaction of both parties; and William continued a faithful ally of the English monarch till his death, which happened in the year 1214, after a reign of 49 years.

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100 Alexander II. An. 121

William was succeeded by his son Alexander II. a youth of 16. He renewed his claim to Northumberland and the other northern counties of England; but John, supposing that he had now thoroughly subdued the English, not only refused to consider the demands of Alexander, but made preparations for invading Scotland. John had given all the country between Scotland and the river Tees to Hugh de Baliol and another nobleman, upon condition of their defending it against the Scots. Alexander invaded Northumberland, which he easily reduced, while John invaded Scotland. Alexander retired to Melros, in order to defend his own country; upon which John burnt the towns of Wark, Alnwick, and Morpeth, and took the strong castles of Roxburgh and Berwick. He next plundered the abbey of Coldingham, reduced Dunbar and Haddington, ravaging the country as he passed along. His next operation was directed against Edinburgh; but being opposed by Alexander at the head of an army, he precipitately retreated. Alexander did not fail to pursue; and John, to cover his retreat, burnt the towns of Berwick and Coldingham. In this retreat the king of England himself set his men an example of barbarity, by setting fire every morning to the house in which he had lodged the preceding night. In short, such desolation did John spread all around him, that Alexander found it impossible to continue his pursuit; for which reason he marched westward, and invaded England by the way of Carlisle. This place he took and fortified; after which he marched south as far as Richmond, receiving homage from all the great barons as he passed. At Richmond he was again stopped by John's ravages, and obliged to return through Westmoreland to his own dominions.

101 War with John, king of England

When the English barons found it necessary to put themselves under the protection of Louis, son to the king of France, this prince, among other acts of sovereignty, summoned Alexander to do him homage; but the latter being then engaged in the siege of Carlisle, which had fallen into the hands of King John, he could not immediately attend. In a short time Alexander found himself obliged to abandon his enterprise: after which he laid siege to Barnard castle; but being baffled here also, marched southwards through the whole kingdom of England, and met Louis at London or Dover, where the prince confirmed to him the rights to Northumberland, Cumberland, and Westmoreland. He continued a faithful ally to Louis and the barons in their wars with John; and, in 1216, brought a fresh army to their assistance, when their affairs were almost desperate

As long as Louis continued in England, Alexander proved faithful to his interest; but, in 1217, he was on such

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such good terms with Henry as to demand his eldest sister, the princess Joan, in marriage. His request was granted; and in 1221 he espoused that princess. As long as the queen of Scotland lived, a perfect harmony subsisted between the Scots and English: but in 1239 Queen Joan died without children; and Alexander soon after married Mary, the daughter of Egelrand de Coucy, a young and beautiful French lady, by whom, in 1241, he had a son named *Alexander*. From this time a coolness took place between the two courts, and many differences arose; but no hostilities commenced on either side during the lifetime of Alexander, who died in 1249, in the 35th year of his reign.

102 Alexander III. An. 1249.

Immediately on the death of his father, Alexander III. took possesion of the throne. He is the first of the Scots kings of whose coronation we have any particular account. We are told, that the ceremony was performed by the bishop of St Andrew's, who girded the king with a military belt, probably as an emblem of his temporal jurisdiction. He then explained in Latin, and afterwards in Gaelic, the laws and oaths relating to the king; who received them all with great appearance of joy, as he also did the benediction and ceremony of coronation from the same prelate. After the ceremony was performed, a Highlander, probably one of those who went under the denomination of *Sannachies*, repeated on his knees before the throne, in his own language, the genealogy of Alexander and his ancestors, up to the first king of Scotland.

103 marries the daughter of Henry III. of England. An. 1250.

In 1250, the king, though no more than ten years of age, was married to the daughter of Henry, who now thought it a proper opportunity to oblige him to do homage for the whole kingdom of Scotland. But Alexander, notwithstanding his youth, replied with great sense and modesty, that his business in England was matrimony; that he had come thither under Henry's protection and invitation; and that he was not prepared to answer such a difficult question.

Henry seems to have been encouraged to this attempt by the distracted state of the Scots affairs at that time; for, during the minority of the king, the nobility threw all into confusion by their mutual dissensions. The family of Cummin were now become exceedingly powerful; and Alexander II. is blamed by Buchanan for allowing them to obtain such an exorbitant degree of power, by which they were enabled almost to shake the foundation of government. Notwithstanding the king's refusal to submit to the homage required of him, they imagined that Henry's influence was now too great; and fearing bad consequences to themselves, they withdrew from York, leaving Henry in full possession of his son-in-law's person. Henry, however, to show that he deserved all the confidence which could be reposed in him, publicly declared, that he dropped all claim of superiority over the crown of Scotland, and that he would ever afterwards act as the father and guardian of his son-in-law; confirming his assurances by a charter. Yet when Alexander returned to Scotland, he found there had been a strong party made against his English connexions. They now exclaimed, that Scotland was no better than a province of England; and having gained almost all the nobility over to their side, they kept the king and queen as two state-prisoners in the castle of Edinburgh. Henry had secret intelligence of these proceedings; and his queen privately sent a physician whom she could trust, to enquire into her daughter's situation. Having found means of being admitted into the young queen's presence, she gave him a most lamentable account of her situation. She said, that the place of their confinement was very unwholesome, in consequence of which their health was in imminent danger; and that they had no concern in the affairs of government. Historians do not inform us by what means they were reduced to this dismal situation; only in general, that the Cummins usurped the whole power of the state. Henry scarcely knew how to act. If he proceeded at once to violent measures, the was afraid of the lives of his daughter and son-in-law; and, on the other hand; by a more cautious conduct, he left them exposed to the wicked attempts of those who kept them in thraldom, some of whom, he well knew, had designs on the crown itself.

104 Is confined with his queen by his rebellious subjects.

105 They are set at liberty by Henry.

By advice of the Scots royalists, among whom were the earls of Dunbar, Fife, Stratherne, Carrick, and Robert de Bruce, Henry assembled his military tenants at York, whence he himself advanced to Newcastle, where he published a manifesto, disclaiming all designs against the peace or independence of Scotland; declaring, that the forces which had been collected at York were designed to maintain both; and that all he intended was to have an interview with the king and queen upon the borders. From Newcastle he proceeded to Wark, where he privately despatched the earl of Gloucester, with his favourite John Mansel, and a train of trusty followers, to gain admission into the castle of Edinburgh, then held by John Baliol and Robert de Ross, noblemen of great influence both in England and Scotland. The earl and Mansel gained admittance into the castle in disguise, on pretence of their being tenants to Baliol and Ross; and their followers obtained access on the same account, without any suspicion, till they were sufficiently numerous to have mastered the garrison, had they met with any resistance. The queen immediately informed them of the thraldom and tyranny in which she had been kept. The English, being masters of the castle, ordered a bed to be prepared that very night for the king and queen; and Henry, hearing of the success of his party, sent a safe-conduct for the royal pair to meet him at Alnwick. Robert de Ross was summoned by Henry to answer for his conduct; but throwing himself on the king's mercy, he was punished only by the sequestration of his estate, as was John Baliol by a heavy fine, which the king of England reserved entirely for his own use.

Alexander and his queen were attended to Alnwick by the heads of their party; and when they arrived, it was agreed that Henry should act as his son-in-law's guardian; in consequence of which, several regulations were made, in order to suppress the exorbitant power of the Cummins. That ambitious family, however, were all this time privately strengthening their party in Scotland, though they appeared satisfied with the arrangements which had been made. This rendered Alexander secure; so that, being off his guard, he was surprised when asleep in the castle of Kinross by the earl of Menteith, who carried him to Stirling. The Cummins were joined in this treason by Sir Hugh de Abernethy, Sir David Lochore, and Sir Hugh de Barclay; and, in the mean time, the whole nation was thrown into the utmost confusion. The great seal was forcibly taken from Robert Stuterville, substitute to the chancellor the bishop

106 Alexander carried off by rebels, but relieved.

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bishop of Dunkeld; the estates of the royalists were plundered; and even the churches were not spared. The king at last was delivered by the death of the earl of Menteith.

Alexander being thus restored to the exercise of regal authority, acted with great wisdom and moderation. He pardoned the Cummins and their adherents, upon their submitting to his authority; after which, he applied himself to the regulation of his other affairs: but a storm was now ready to break upon him from another quarter. We have already seen, that the usurper Donald Bane, brother to Malcolm Canmore, had engaged to deliver up the isles of Orkney and Shetland to the king of Norway, for assisting him in making good his pretensions to the crown of Scotland. Haco, the king of Norway at this time, alleged, that these engagements extended to the delivering up the islands of Bute, Arran, and others in the frith of Clyde, as belonging to the Ebudæ or Western isles; and as Alexander did not think proper to comply with these demands, the Norwegian monarch appeared with a fleet of 160 sail, having on beard 20,000 troops, who landed and took the castle of Ayr. Alexander immediately despatched ambassadors to enter into a treaty with Haco; but the latter, flushed with success, would listen to no terms. He made himself master of the isles of Bute and Arran; after which he passed over to Cunningham. Alexander, prepared to oppose him, divided his army into three bodies. The first was commanded by Alexander high steward of Scotland (the great-grandfather of Robert II.), and consisted of the Argyle, Athol, Lenox, and Galloway men. The second was composed of the inhabitants of Lothian, Fife, Merse, Berwick, and Stirling, under the command of Patrick earl of Dunbar. The king himself led the centre, which consisted of the inhabitants of Perthshire, Angus, Mearns, and the northern counties.—Haco, who was an excellent general, disposed his men in order of battle, and the engagement began at Largs in Ayrshire. Both parties fought with great resolution; but at last the Norwegians were defeated with dreadful slaughter, not fewer than 16,000 of them being killed on the spot. The remainder escaped to their ships; which were so completely wrecked the day after, that Haco could scarcely find a vessel to carry him with a few friends to Orkney, where he soon after died of grief.

An. 1263.

107 Defeats the Norwegians.

In consequence of this victory, the king of the island of Man submitted to Alexander; and his example was followed by several other princes of the islands belonging to the Norwegians. Haco's son, a wise and learned prince, soon after arrived in Scotland with fresh reinforcements, and proposed a treaty: but Alexander, instead of listening to an accommodation, sent the earls of Buchan and Murray, with Allen the chamberlain, and a considerable body of men, to the Western Islands, where they put to the sword some of the inhabitants, and hanged their chiefs for having encouraged the Norwegian invasion. In the mean time, Magnus returned to Norway, where a treaty was at last concluded between him and Alexander. By this, Magnus renounced all right to the contested islands; Alexander at the same time consenting to pay him 1000 merks of silver in two years, and 100 yearly ever after, as an equivalent for these islands. To cement the friendship more firmly, a marriage was concluded between Margaret the daughter of Alexander, and Eric the son and heir of Magnus, who was also a child; and, some years after, when the parties were of proper age, the marriage was consummated.

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108 Alexander assists the king of England. An. 1264.

In 1264, Alexander sent a considerable body of Scottish forces under the command of John Cummin, John Baliol, and Robert Bruce, to assist the king of England against his rebellious barons. The leaders were taken prisoners in the battle of Lewis, where Henry was defeated, but regained their liberty in the following year at the decisive battle of Evesham, by which the English civil war was successfully terminated on the part of Henry by the young Prince Edward.

From this time to the accession of Edward I. of England, we find nothing remarkable in the history of Scotland. That prince, however, proved a more cruel enemy to this country than it had ever experienced. Alexander was present at the coronation of Edward, who was then newly arrived from the Holy Land, where he had been on a crusade. Soon after this, Alexander paid him homage for his English estates; particularly for the lands and lordship of Penrith and others, which Henry had given him along with his daughter. He proved an excellent ally to Edward in his wars against the French; and the latter passed a charter, by which he acknowledged that the services of the king of Scotland in those wars were not in consequence of his holding lands in England, but as an ally to his crown. Even at this time, however, Edward had formed a design on the liberties of that kingdom; for in the charter just mentioned, he inserted a salvo, acknowledging the superiority, by which he reserved his right to the homage of the kingdom of Scotland, when it should be claimed by him or his heirs. The bishop of Norwich suggested this salvo: and this was the reason why Alexander would not perform the homage in person, but left it to be performed by Robert Bruce earl of Carrick; Alexander standing by, and expressly declaring, that it was only paid for the lands he held in England.—No acts of hostility, however, took place during the lifetime of Alexander, who was killed on the 16th of March 1285, in the 45th year of his age, by his horse rushing down the black rock near Kinghorn as he was riding.

109 Designs of Edward I. against the liberties of Scotland. An. 1285.

Both before and after the death of Alexander, the great subjects of Scotland seemed to have been sensible of Edward's ambitious designs. On the marriage of Margaret with Eric prince of Norway, the states of Scotland passed an act obliging themselves to receive her and her heirs as queen and sovereigns of Scotland. Edward at that time was in no condition to oppose this measure, in which the Scots were unanimous; and therefore contented himself with forming factions among the leading men of the country. Under pretence of resuming the cross, he renewed his intrigues at the court of Rome, and demanded leave from the pope to collect the tenths in Scotland; but his holiness replied, that he could make no such grant without the consent of the government of Scotland. On the death of Margaret queen of Norway, her daughter, in consequence of the act above mentioned, was recognised by the states as queen of Scotland. As she was then but two years old, they came to a resolution of excluding from all share in the government, not only Edward I. but their queen's father; and they accordingly established a regency from among

An. 1285.

100 Accession of Margaret.

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among their own number, consisting of the six following noblemen; viz. Robert Wishart bishop of Glasgow, Sir James Cummin of Badenoch, senior, James lord high steward of Scotland, who were to have the superintendency of all that part of Scotland which lay to the south of the Forth; William Fraser bishop of St Andrews, Duncan M'Duff earl of Fife, and Alexander Cummin earl of Buchan, who were to have the direction of all affairs to the north of the same river.—With these arrangements Eric was exceedingly displeased, considering himself as the only rightful guardian of his own child. He therefore cultivated a good understanding with Edward, from whom he had received considerable pecuniary favours; and perceiving that the states of Scotland were unanimous in excluding all foreigners from the management of their affairs, he embraced the views of the king of England, and named commissioners to treat with those of Edward upon the Scots affairs. These negociations terminated in a treaty of marriage between the queen of Scotland and Edward prince of Wales, young as they both were. This alarmed the states of Scotland, who resolved not to suffer their queen to be disposed of without their consent. It was therefore agreed by the commissioners on both sides, to acquaint them with the result of their conferences, and to demand that a deputation should be sent to London for settling the regency of Scotland, or, in other words, for putting the sovereign power into the hands of the two kings. As the two parties, however, were within the prohibited degrees of consanguinity, being first cousins, a dispensation was applied for to Pope Boniface, who granted it on condition that the peers of Scotland consented to the match.

111 Treaty of marriage between the young queen of Scotland and the prince of Wales.

Though the Scots nobility were very inimical to this match, they could not refuse their consent to it when proposed by the father and grand-uncle of their young queen. They therefore appointed the bishops of St Andrew's and Glasgow, with Robert Bruce lord of Annandale, and John Cummin, to attend as their deputies, but with a charge to preserve all the liberties and honours of the realm of Scotland; to which Edward agreed. These deputies met at Salisbury with those of England and Norway; and it was at last agreed, 1. That the young queen should be sent from Norway (free of all marriage-engagements) into England or Scotland. 2. That if the queen came to England, she should be at liberty to repair to Scotland as soon as the distractions of that kingdom should be settled; that she should, on her arrival in her own dominions, be free of all matrimonial contracts; but that the Scots should engage not to dispose of her in marriage without her father or Edward's consent. 3. The Scots deputies promised to give such security as the Norwegian commissioners might require, that the tranquillity of the nation should be settled before her arrival. 4. That the commissioners of Scotland and Norway, joined with commissioners from England, should remove such regents and officers of state in Scotland as might be suspected of disaffection, and place others in their stead. If the Scots and Norwegian commissioners should disagree on that or any other head relating to the government of Scotland, the decision was to be left to the arbitration of English commissioners.

The party of Edward was now so strong in Scotland, that no opposition was made to the late agreement, in a parliament held at Brechin to deliberate upon the settlement of the kingdom. It is uncertain whether he communicated in form to the Scottish parliament the pope's dispensation for the marriage: but most probably he did not; as, in a letter written to him by the states of Scotland, they mention this as a matter they heard by report. On the whole, however, they highly approved of the marriage, upon certain conditions to which Edward was previously to agree; but the latter, without waiting to perform any conditions, immediately sent for the young queen from Norway. This exceedingly displeased Eric, who was by no means inclined to put his daughter into the hands of a prince whose sincerity he suspected, and therefore delayed the departure of the young queen till he should hear farther from Scotland. Edward, alarmed at this, had again recourse to negociation; and ten articles were at last drawn up, in which the Scots took all imaginable precautions for the safety and independence of their country. These articles were ratified by Edward on the 28th of August 1289; yet, An. 1289. even after the marriage was fully settled, he lost no time in procuring as strong a party as possible. At the head of these were the archbishop of St Andrew's, and John Baliol. That prelate, while he was in England, was highly caressed by Edward, from whom he had great expectations of preferment; and Baliol, having great estates in England, considered Edward as his sovereign. The bishop, on his return to Scotland, acted as a spy for Edward, and carried on with him a secret correspondence, informing him of all public transactions. It appears from this correspondence, that the Scots were far from being unanimous as to the marriage. Bruce earl of Annandale suspected, for some reason or other, that the young queen was dead; and, soon after Michaelmas 1290, assembled a body of forces, and was joined by the earls of Mar and Athol. Intelligence of these commotions was carried to Edward by Baliol; and the archbishop of St Andrew's advised Edward, if the report of the queen's death should prove true, to march a body of troops towards Scotland, in order to secure such a successor as he might think proper.

Edward, in the mean time, consented to allow ambassadors to be sent from Scotland to bring over the young queen, previous to which, he appointed the bishop of Durham to be lieutenant in Scotland for the queen and her future husband; and all the officers there, both civil and military, obliged themselves to surrender their employments and fortresses to the king and queen (that is, to Edward) immediately on their arrival in Scotland. But while the most magnificent preparations were making for the reception of the queen, intelligence of her death was received; but it is not certainly known whether this event happened before the arrival of the ambassadors in Norway, or after her departure from that country, probably the latter.

112 Death of the queen. An. 1290.

The Scots were thrown into the utmost consternation by the news of the queen's death; while, on the other hand, Edward was as well prepared as if he had known what was to happen. The state of Scotland at this time, indeed, was to the last degree deplorable. The act of succession, established by the late king, had no further operation, being determined by the death of the queen; and since the crown was hereditary, there was no precedent by which it could be settled. The Scots, in general, however, turned their eyes on the

113 A number of competitors for the crown.

Scotland. the posterity of David earl of Huntingdon, brother to the two kings Malcolm the Maiden and his successor William, both of whom died without lawful issue. The earl had three daughters. Margaret, the eldest, was married to Allan lord of Galloway; the only issue of which marriage was Derverguill wife to John Baliol, who had a son of the same name, a competitor for the crown. The second daughter, Isabella, was married to Robert Bruce; and their son Robert was likewise a candidate. The third daughter, Ada, had been married to Henry Hastings, an English nobleman, and predecessor to the present earl of Huntingdon. John Hastings, the son of this marriage, was a third competitor; but as his claim was confessedly the worst of the three, he put in only for a third of the kingdom, on the principle that his mother was joint-heir with her two sisters (c). Several other claimants now started up. Florence earl of Holland pretended to the crown of Scotland in right of his great grandmother Ada, the eldest lawful sister of William, formerly king; as did Robert de Pynkeny, in the right of his great grandmother Margery, second sister of the same King William. Patrick Gallightly was the son of Henry Gallightly, a bastard of William; William de Ross was descended of Isabel; Patrick earl of March, of Ida or Ada; and William de Vesei, of Margery; all three natural daughters of King William. Roger de Mandeville, descended from Aufrie, another natural daughter of William, also put in his claim; but the right of Nicolas de Soulis, if bastardy could give a right, was better than those of the former. His grandmother Margery, the wife of Allan le Huissier, was a natural daughter of Alexander II. and consequently sister to Alexander III. John Cummin lord of Badenoch derived his claim from a more remote source, viz. Donald Bane, who usurped the crown about 200 years before this time; but he was willing to resign his pretensions in favour of John Baliol. The last, indeed, had the best right; and, had the succession been regulated as it is in all hereditary kingdoms at this day, he would undoubtedly have succeeded. Bruce and Hastings, however, pleaded that they were preferable, not only to John Baliol the grandchild of Margaret, but also to Derverguill her daughter and his mother, for the following reason. Derverguill and they were equally related to their grandfather Earl David: She was indeed the daughter of his eldest daughter; but she was a woman, they were men; and, said they, the male in the same degree ought to succeed to sovereignties, in their own nature impartible, preferable to the female.

Notwithstanding this number of candidates, however, it was soon perceived, that the claims of all might be cut off excepting those of two, viz. Baliol and Bruce, of whom the former had the preference with respect to hereditary right, and the latter as to popularity. Baliol had strongly attached himself to Edward's party; and this being by far the most powerful in Scotland, gave him a decided superiority over Bruce. The event was, that Edward was appointed to decide between the two competitors. It soon appeared, however, that Edward had no intention of adjudging the crown to any person but himself; for, in an assembly held at Norham on the 10th of May 1291, Brabanzon the chief justice of England informed the members, "that his master was come thither in consideration of the state of the realm of Scotland, which was then without a king, to meet them, as *direct sovereign* of that kingdom, to do justice to the claimants of his crown, and to establish a solid tranquillity among his people; that it was not his intention to retard justice, nor to usurp the right of any one, or to infringe the liberties of the kingdom of Scotland, but to render to every one his due. And to the end this might be done with the more ease, he required the assent of the states *ex abundante*, and that they should own him as *direct sovereign* of the kingdom; offering, on that condition, to make use of their counsels to do what justice demanded." The deputies were astonished at this declaration, and replied, that they were by no means prepared to decide on Edward's claim of superiority; but that Edward ought previously to judge the cause between the two competitors, and require homage from him whom he should choose to be king. Edward treated this excuse as trifling, and gave them till next day to consider of his demand. Accordingly, on that day, the assembly was held in Norham church, where the deputies from Scotland insisted upon giving no answer.

114 Edward declares himself sovereign of Scotland.

(c) The pedigree of the three principal competitors will be fully understood from the following scheme.

David I. King of Scots.
|
Henry Prince of Scotland.
|
David Earl of Huntingdon, second son.

3. Ada = Henry de Hastings.	2. Isabella = Robert Bruce.	1. Margaret = Allan of Galloway.
Henry de Hastings.	ROBERT BRUCE, *competitor.*	John Baliol = Derverguill.
JOHN DE HASTINGS, *competitor.*		JOHN BALIOL, *competitor.*

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swer to Edward's demands, which could be decided only by the whole community; representing, at the same time, that numbers of the noblemen and prelates were absent, and that they must have time to know their sense of the affair. In consequence of this, Edward gave them a delay of three weeks; which interval he employed in multiplying claimants to the crown of Scotland, and in flattering all with hopes, if they would acknowledge his superiority. But when the assembly met, according to appointment, on the 2d of June following, they found the place of meeting surrounded by a numerous army of English. Edward had employed the bishop of Durham to draw up the historical evidence of his right to the crown of Scotland; which has since been published. In this paper mention is made of the fealty and homage performed by the kings of Scotland to the Anglo-Saxon kings of England; but no sufficient evidence is brought of any such homage being actually performed. As to the homage paid by the kings of Scotland from the time of William the Conqueror to that of the dispute between Bruce and Baliol, the Scots never denied it; but they contended, and indeed with justice, that it was paid for the lands which they held from the crown of England; and they alleged, that it was as far removed from any relation to a fealty or homage performed for the crown of Scotland, as the homage paid by the English monarchs to the crown of France was removed from all relation to the crown of England. With regard to the homage paid by William king of Scotland to Henry II. of England, it was not denied that he performed it for the whole kingdom of Scotland: but they pleaded that it was void of itself, because it was extorted when William was a prisoner to Henry; and they produced Richard I.'s charters, which pronounced it to have been compulsive and iniquitous.

But, however urgent these reasons of the Scots might be, Edward was by no means disposed to examine into their merits. Instead of this, he closeted the several pretenders to the crown; and having found them all ready to comply with his measures, he drew up the following charter of recognition to be signed by them all.

115 The candidates sign an assent. An. 1291.

"To all who shall hear this present letter.

"We Florence earl of Holland, Robert de Bruce lord of Annandale, John Baliol lord of Galloway, John Hastings lord of Abergavenny, John Cummin lord of Badenoch, Patrick de Dunbar, earl of March, John Vesci for his father Nicholas Soulis, and William de Ross, greeting in the Lord.

"Whereas we intend to pursue our right to the kingdom of Scotland; and to declare, challenge, and aver the same before him that hath most power, jurisdiction, and reason to try it; and the noble prince Edward, by the grace of God king of England, &c. having informed us, by good and sufficient reasons, that to him belongs the sovereign seigniory of the same: We therefore promise that we will hold firm and stable his act; and that he shall enjoy the realm to whom it shall be adjudged before him. In witness whereof, we have set our seals to this writing, made and granted at Norham, the Tuesday after the Ascension, in the year of Grace 1291."

Edward then declared, by the mouth of his chancellor, that although, in the dispute which had arisen between the several claimants, touching the succession to the kingdom of Scotland, he acted in quality of sovereign, in order to render justice to whomsoever it was due; yet he did not thereby mean to exclude himself from the hereditary right which in his own person he might have to that crown, and which right he intended to assert and improve when he should think proper: and the king himself repeated this protestation in French. The candidates were then severally called upon by the English chancellor, to declare whether they were willing to acknowledge Edward's claim of superiority over the crown of Scotland, and to submit to his award in disposing of the same; which being answered in the affirmative, they were then admitted to prove their rights. But this was mere matter of form; for all the force of England was then assembled on the borders in order to support the claims of Edward, and nothing now remained but to furnish him with a sufficient pretext for making use of it. He observed, that the Scots were not so unanimous as they ought to be in recognising his superiority, and that the submission, which had been signed by the candidates, was not sufficient to carry it into execution. For this reason he demanded that all the forts in Scotland should be put into his possession, that he might resign them to the successful candidate.

116 Edward demands possession of all the fortified places in Scotland.

Though nothing could be more shameful than a tame compliance with this last demand, the regency of Scotland without hesitation yielded also to it; for which they gave the following reasons. "That whereas they (the states of Scotland), had, with one assent, already granted that King Edward, as superior lord of Scotland, should give sentence as to their several rights and titles to the crown of Scotland, &c. but as the said king of England cannot put his judgment in full execution to answer effectually without the possession or seisin of the said country and its castles; we will, grant, and assent, that he, as sovereign lord thereof, to perform the things aforesaid, shall have seisin of all the lands and castles in Scotland, until right be done to the demandants, and to the guardians and community of the kingdom of Scotland, to restore both it and its castles, with all the royalties, dignities, franchises, customs, rights, laws, usages and possessions, with their appurtenances, in the same state and condition in which they were when he received them; saving to the king of England the homage of him that shall be king: so as they may be restored within two months after the day on which the rights shall be determined and affirmed; and that the profits of the nation which shall be received in the mean time shall be kept in the hands of the chamberlain of Scotland that now is, and one to be joined with him by the king of England; so that the charge of the government, castles, and officers of the realm, may be deducted. In witness whereof, &c."

117 which is agreed to by the states.

For these reasons, as it is said, the regency put into the hands of Edward all the forts in the country. Gilbert de Umfreville alone, who had the command of the castles of Dundee and Forfar, refused to deliver them up, until he should be indemnified by the states, and by Edward himself, from all penalties of treason of which he might afterwards be in danger.

But though Edward had thus obtained possession of the whole power of the nation, he did not think proper to determine every thing by his own authority. Instead

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118 Commissioners appointed to determine the pretensions of the candidates.

of this, he appointed commissioners, and promised to grant letters patent declaring that sentence should be passed in Scotland. It had been all along foreseen that the great dispute would be between Bruce and Baliol; and though the plea of Cummin was judged frivolous, yet he was a man of too much influence to be neglected, and he agreed tacitly to resign it in favour of Baliol. Edward accordingly made him the compliment of joining him with Baliol in nominating 40 commissioners. Bruce was to name 40 more; and the names of the 80 were to be given in to Edward in three days; after which the king was to add to them 24 of his own choosing. The place and time of meeting were left at their own option. They unanimously pitched upon Berwick for the place of meeting; but as they could not agree about the time, Edward appointed the second of August following. Soon after this, the regents resigned their commissions to Edward; but he returned them, with powers to act in his name; and he nominated the bishop of Caithness to be chancellor of Scotland; joining in the commission with him Walter de Hemondesham an Englishman, and one of his own secretaries. Still, however, he met with many difficulties. Many of his own great men, particularly the earl of Gloucester, were by no means fond of increasing the power of the English monarch by the acquisition of Scotland; and therefore threw such obstacles in his way, that he was again obliged to have recourse to negotiation and intrigue, and at last to delay the meeting until the second of June in 1292: but during this interval, that he might the better reconcile the Scots to the loss of their liberty, he proposed an union of the two kingdoms; and for this he issued a writ by virtue of his superiority.

An. 1292.

The commissioners having met on the second of June 1292, ambassadors for Norway presented themselves in the assembly, demanding that their master should be admitted into the number of the claimants, as father and next heir to the late queen. This demand too was admitted by Edward, after the ambassadors had acknowledged his superiority over Scotland; after which he proposed that the claims of Bruce and Baliol should be previously examined, but without prejudice to those of the other competitors. This being agreed to, he ordered the commissioners to examine by what laws they ought to proceed in forming their report. The discussion of this question was attended with such difficulty, and the opinions on it were so various, that Edward once more adjourned the assembly to the 12th of October following; at which time he required the members to give their opinions on the two following points: 1. By what laws and customs they ought to proceed to judgment; and, supposing there could be no law or precedent found in the two kingdoms, in what manner? 2. Whether the kingdom of Scotland ought to be taken in the same view as all other fiefs, and to be awarded in the same manner as earldoms and baronies? The commissioners replied, that Edward ought to give justice conformable to the usage of the two kingdoms: but that if no certain laws or precedents could be found, he might by the advice of his great men, enact a new law. In answer to the second question they said, that the succession to the kingdom might be awarded in the same manner as that to other estates and great baronies. Upon this, Edward ordered Bruce and Baliol to be called before him; and both of them urged their respective pleas, and answers, to the following purpose.

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119 Pleas of Bruce and Baliol.

Bruce pleaded, 1. That Alexander II. despairing of heirs of his own body, had declared that he held him to be the true heir, and offered to prove by the testimony of persons still alive, that he declared this with the advice and in the presence of the good men of his kingdom. Alexander III. also had declared to those with whom he was intimate, that, failing issue of his own body, Bruce was his right heir. The people of Scotland also had taken an oath for maintaining the succession of the nearest in blood to Alexander III. who ought of right to inherit, failing Margaret the Maiden of Norway and her issue.—Baliol answered, that nothing could be concluded from the acknowledgement of Alexander II. for that he left heirs of his body; but made no answer to what was said of the sentiments of Alexander III. and of the oath made by the Scottish nation to maintain the succession of the next of blood.

2. Bruce pleaded, that the right of reigning ought to be decided according to the natural law by which kings reign, and not according to any law or usage in force between subject and subject: That by the law of nature, the nearest collateral in blood has a right to the crown; but that the constitutions which prevail among vassals, bind not the lord, much less the sovereign: That although, in private inheritances which are divisible, the eldest female heir has a certain prerogative, it is not so in a kingdom that is indivisible; there the nearest heir of blood is preferable whenever the succession opens.—To this Baliol replied, that the claimants were in the court of their lord paramount; and that he ought to give judgment in this case, as in the case of any other tenements, depending on his crown, that is, by the common law and usage of his kingdom, and no other. That by the laws and usages of England, the eldest female heir is preferred in the succession to all inheritances, indivisible as well as divisible.

3. It was urged by Bruce, that the manner of succession to the kingdom of Scotland in former times, was in favour of his claim; for that the brother, as being nearest in degree, was wont to be preferred to the son of the deceased king. Thus, when Kenneth Macalpin died, his brother Donald was preferred to his son Constantine, and this was confirmed by several other authentic instances in the history of Scotland.—Baliol answered, that if the brother was preferred to the son of the king, the example militated against Bruce; for that the son, not the brother, was the nearest in degree. He admitted, that after the death of Malcolm III. his brother usurped the throne; but he contended, that the son of Malcolm complained to his liege lord the king of England, who dispossessed the usurper, and placed the son of Malcolm on the throne; that after the death of that son the brother of Malcolm III. again usurped the throne; but the king of England again dispossessed him, and raised Edgar, the second son of Malcolm, to the sovereignty.

4. Bruce pleaded, that there are examples in other countries, particularly in Spain and Savoy, where the son of the second daughter excluded the grandson of the eldest daughter.—Baliol answered, that examples from foreign countries are of no importance; for that, according

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according to the laws of England and Scotland, where kings reign by succession in the direct line, and earls and barons succeed in like manner, the issue of the younger sister, although nearer in degree, excludes not the issue of the eldest sister, although more remote; but the succession continues in the direct line.

5. Bruce pleaded, that a female ought not to reign, as being incapable of governing: That at the death of Alexander III. the mother of Baliol was alive; and as she could not reign, the kingdom devolved upon him, as being the nearest male heir of the blood royal. But to this Baliol replied, that Bruce's argument was inconsistent with his claim: for that if a female ought not to reign, Isabella the mother of Bruce ought not, nor must Bruce himself claim through her. Besides, Bruce himself had sworn fealty to a female, the maiden of Norway.

120 Judgment given in favour of Baliol,

The arguments being thus stated on both sides, Edward demanded an answer from the council as to the merits of the competitors. He also put the following question to them: By the laws and usages of both kingdoms, does the issue of the eldest sister, though more remote in one degree, exclude the issue of the second sister, though nearer in one degree? or ought the nearer in one degree, issuing from the second sister, to exclude the more remote in one degree issuing from the eldest sister? To this it was answered unanimously, That by the laws and usages of both kingdoms, in every heritable succession, the more remote in one degree lineally descended from the eldest sister, was preferable to the nearer in degree issuing from the second sister. In consequence of this, Bruce was excluded from the succession; on which he entered a claim for one third of the kingdom: but being baffled in this also, the kingdom of Scotland being determined an indivisible fee, Edward ordered John Baliol to have seisin of Scotland; with this caveat, however, "That this judgment should not impair his claim to the property of Scotland."

121 who is crowned at Scone, 30th Nov. 1292.

After so many disgraceful and humiliating concessions on the part of the Scots, John Baliol was crowned king at Scone on the 30th November 1292; and finished the ceremony by doing homage to the king of England. All his submissions, however, could not satisfy Edward, as long as the least shadow of independence remained to Scotland. A citizen of Berwick appealed from a sentence of the Scots judges appointed by Edward, in order to carry his cause into England. But this was opposed by Baliol, who pleaded a promise made by the English monarch, that he should "observe the laws and usages of Scotland, and not withdraw any causes from Scotland into his English courts."

122 Haughty behaviour of Edward.

Edward replied, that it belonged to him to hear the complaints made against his own ministers; and concluded with asserting his right, not only to try Scots causes in England, but to summon the king of Scotland, if necessary, to appear before him in person. Baliol had no spirit to resist; and therefore signed a most disgraceful instrument, by which he declared, that all the obligations which Edward had come under were already fulfilled, and therefore that he discharged them all.

Edward now thought proper to give Baliol some marks of his favour, the most remarkable of which was giving him seisin of the Isle of Man; but it soon appeared that he intended to exercise his rights of superiority in the most provoking manner. The first instance was in the case of Malcolm earl of Fife. This nobleman had two sons, Colban his heir, and another who is constantly mentioned in history by the family-name of Macduff.—It is said, that Malcolm put Macduff in possession of the lands of Reres and Crey. Malcolm died in 1266; Colban his son, in 1270; Duncan the son of Colban, in 1288. To this last earl, his son Duncan, an infant, succeeded. During the nonage of this Duncan, grandnephew of Macduff, William archbishop of St Andrew's, guardian of the earldom, dispossessed Macduff. He complained to Edward; who having ordered his cause to be tried, restored him again to possession. Matters were in this state when Baliol held his first parliament at Scone, 10th February 1293. There Macduff was cited to answer for having taken possession of the lands of Reres and Crey, which were in possession of the king since the death of the last earl of Fife. As his defences did not satisfy the court, he was condemned to imprisonment; but an action was reserved to him against Duncan, when he should come of age, and against his heirs. In all this defence, it is surprising that Macduff should have omitted his strongest argument, viz. that the regents, by Edward's authority, had put him in possession, and that Baliol had ratified all things under Edward's authority. However, as soon as he was set at liberty, he petitioned Baliol for a rehearing; but this being refused, he appealed to Edward, who ordered Baliol to appear before him in person on the 25th of March 1293: but as Baliol did not obey this order, he summoned him again to appear on the 14th of October. In the mean time the English parliament drew up certain *standing orders* in cases of appeal from the king of Scots; all of which were harsh and captious. One of these regulations provided, "that no excuse of absence should be received either from the appellant, or the king of Scotland, respondent; but that the parties might have counsel if they required it."

123 He summons Baliol to appear before him, An. 1293,

124 who behaves with resolution at his trial.

Though Baliol had not the courage to withstand the second summons of Edward, he behaved with considerable resolution at the trial. The cause of Macduff being brought on, Edward asked Baliol what he had to offer in his own defence; to which he replied, "I am King of Scotland. To the complaint of Macduff, or to ought else respecting my kingdom, I dare not make answer without the advice of my people."—Edward affected surprise at this refusal, after the submissions which Baliol had already made him; but the latter steadily replied, "In matters respecting my kingdom, I neither *dare* nor *can* answer in this place, without the advice of my people." Edward then desired him to ask a further adjournment, that he might advise with the nation. But Baliol, perceiving that his doing so would imply an acquiescence in Edward's right of requiring his personal attendance on the English courts, replied, "That he would neither ask a longer day, nor consent to an adjournment."—It was then resolved by the parliament of England, that the king of Scotland had offered no defence; that he had made evasive and disrespectful answers; and that he was guilty of manifest contempt of the court, and of open disobedience. To recompense Macduff for his imprisonment, he was ordered damages from the king of Scots, to be taxed by the

125 He is condemned.

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the court; and it was also determined that Edward should inquire, according to the usages of the country, whether Macduff recovered the tenements in question by the judgment of the king's court, and whether he was dispossessed by the king of Scots. It was also resolved, that the three principal castles of Scotland, with the towns in which they were situated, and the royal jurisdiction over them, should be taken into the custody of the king, and there remain until the king of Scots should make satisfaction for his contempt and disobedience. But, before this judgment was publicly intimated, Baliol addressed Edward in the following words: "My lord, I am your liege-man for the kingdom of Scotland; that, whereof you have lately treated, respects my people no less than myself: I therefore pray you to delay it until I have consulted my people, lest I be surprised through want of advice: They who are now with me, neither will nor dare advise me in absence of the rest of my kingdom. After I have advised with them, I will in your first parliament after Easter report the result, and do to you what I ought."

126 Edward's demands on Scotland.

In consequence of this address, Edward, with consent of Macduff, stopped all proceedings till the day after the feast of Trinity 1294. But before this term Edward was obliged to suspend all proceedings against the Scots, in consequence of a war which broke out with France. In a parliament held this year by Edward, the king of Scotland appeared, and consented to surrender the whole revenues of his English estates for three years to assist Edward against his enemy. He was also *requested* and *ordered* by Edward to extend an embargo laid upon the English vessels all over Scotland; and this embargo to endure until the king of England's further pleasure should be known. He also requested Baliol to send some troops for an expedition into Gascony, and required the presence and aid of several of the Scottish barons for the same purpose. The Scots, however, eluded the commands of Edward, by pretending that they could not bring any considerable force into the field; and, unable to bear his tyranny any longer, they negociated an alliance with Philip king of France. Having assembled a parliament at Scone, they prevailed upon Baliol to dismiss all the Englishmen whom he maintained at his court. They then appointed a committee of twelve, four bishops, four earls, and four barons, by whose advice every thing was to be regulated; and, if we may credit the English historians, they watched the conduct of Baliol himself, and detained him in a kind of honourable captivity. They could not, however, prevent him from delivering up the castles of Berwick, Roxburgh, and Jedburgh, to the bishop of Carlisle; in whose custody they were to remain during the war between England and France, as a pledge of his allegiance. Notwithstanding this, Baliol concluded the alliance with Philip; by which it was stipulated, that the latter should give in marriage the eldest daughter of the count of Anjou to Baliol's son; and it was also provided, that Baliol should not marry again without the consent of Philip. The king of Scotland engaged to assist Philip in his wars at his own expense, and with his whole power, especially if Edward invaded France; and Philip on his part engaged to assist Scotland, in case of an English invasion, either by making a diversion, or by sending succours to the Scotch.

127 The Scots enter into an alliance with France. An. 1294.

Elated with the hopes of assistance from France, the Scots invaded Cumberland with a mighty army, and laid siege to Carlisle. The men abandoned the place; but the women mounted the walls, and drove the assailants from the attack. Another incursion into Northumberland proved almost as disgraceful. Their whole exploits consisted in burning a nunnery at Lumley, and a monastery at Corebridge, though dedicated to their patron St Andrew; but having attempted to storm the castle of Harbottle, they were repulsed with loss. In the mean time Edward, with an army equal in number to that of the Scots, but much superior in respect of discipline, invaded the eastern coast of Scotland. Berwick had either not been delivered according to promise, or had been resumed by the Scots, and was now defended by a numerous garrison. Edward assaulted it by sea and land. The ships which began the attack were all either burnt or disabled; but Edward having led on his army in person, took the place by storm, and cruelly butchered the inhabitants, to the number of 8000, without distinction of sex or age. In this town there was a building called the *Red-hall*, possessed by certain Flemings, by the tenure of defending it at all times against the king of England. Thirty of these maintained their ground for a whole day against the English army; but at night the building being set on fire, all of them perished in the flames. The same day the castle capitulated; the garrison, consisting of 2000 men, marched out with all the honours of war, after having sworn never to bear arms against England.

128 The Scots invade England without success.

129 Berwick taken, and the inhabitants massacred by Edward.

In the mean time, Baliol, by the advice of his parliament, solemnly and openly renounced his allegiance to Edward, sending him the following declaration—

130 Baliol's renunciation of his allegiance to England.

"To the magnificent prince, Edward, by the grace of God, king of England; John, by the same grace, king of Scotland.

"Whereas you, and others of your kingdom, you not being ignorant, or having cause of ignorance, by your violent power, have notoriously and frequently done grievous and intolerable injuries, contempts, grievances, and strange damages against us, the liberties of our kingdom, and against God and justice; citing us, at your pleasure, upon every slight suggestion, out of our kingdom; unduly vexing us; seizing our castles, lands, and possessions, in your kingdom; unjustly, and for no fault of ours, taking the goods of our subjects, as well by sea as land, and carrying them into your kingdom; killing our merchants, and others of our kingdom; carrying away our subjects and imprisoning them: For the reformation of which things, we sent our messengers to you, which remain not only unredressed, but there is every day an addition of worse things to them; for now you are come with a great army upon the borders, for the disinheriting us, and the inhabitants of our kingdom; and, proceeding, have inhumanly committed slaughter, burnings, and violent invasions, as well by sea as land: We not being able to sustain the said injuries, grievances, and damages any longer, nor to remain in your fealty or homage, extorted by your violent oppression, restore them to you, for ourself, and all the inhabitants of our kingdom, as well for the lands we hold of you in your kingdom, as for your pretended government over us."

Edward was presented with this renunciation by the hands of the intrepid Henry, abbot of Aberbrothwick; and as it was favourable to his political views, he received

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ceived it rather with contempt than anger. "The foolish traitor," said he to the abbot, "since he will not come to us, we will go to him." The abbot had been persuaded by his enemies, of whom he had many in Scotland, to present this letter, in hopes that Edward would have put him to death; but he had address enough to escape without receiving any other answer.

Though this scheme of renunciation had been concerted some time before, the declaration was not sent to Edward till after the taking of Berwick. The fate of Scotland, after it, however, was soon decided. The earl of March had sided with Edward, but the countess betrayed his castle of Dunbar into the hands of the Scots. Edward sent a chosen body of troops to recover the place. The whole force of Scotland opposed them on the heights above Dunbar; but leaving their advantageous post, and pouring down on their enemies in confusion, they were dispersed and defeated.

131 The Scots defeated at Dunbar.

The castle of Dunbar surrendered at discretion; that of Roxburgh followed the same example; the castle of Edinburgh surrendered after a short siege; and Stirling was abandoned. The Scots, in the mean time, were guilty of the greatest extravagances. During the short interval between the loss of Berwick and the defeat at Dunbar, an order was made for expelling all the English ecclesiastics who held benefices in England; all the partisans of England, and all neutrals, were declared traitors, and their estates confiscated. But the great successes of Edward soon put an end to these impotent acts of fury. Baliol was obliged to implore the mercy of the conqueror. Divested of his royal ornaments, and bearing a white rod in his hand, he performed a most humiliating penance; confessing that by evil and false counsel, and through his own simplicity, he had grievously offended his liege lord. He recapitulated his various transgressions, in concluding an alliance with France while at enmity with England; in contracting his son with the niece of the French king; in renouncing his fealty; in attacking the English territories, and in resisting Edward. He acknowledged the justice of the English invasion and conquest; and therefore he, of his own free consent, resigned Scotland, its people, and their homage, to his liege-lord Edward, 2d July, 1296.

An. 1296.

132 Baliol submits to Edward.

The king of England pursued his conquests, the barons everywhere crowding in to swear fealty to him, and renounce their allegiance to France. His journey ended at Elgin, from whence he returned southward; and, as an evidence of his having made an absolute conquest of Scotland he carried off from Scone the wooden chair in which the kings were usually crowned. This chair had for its bottom the fatal stone regarded as the national palladium (D). Some of the charters belonging to the abbey were carried off, and the seals torn from others.

133 Scotland subdued.

On the 28th of August 1296, Edward held a parliament at Berwick, where he received the fealty of the clergy and laity of Scotland. It is said, that while the English monarch was employed in the conquest of Scotland, he had promised the sovereignty to Robert Bruce, lord of Annandale, in order to secure his fidelity; but being put in mind of his promise, he answered, "Have I no other business but to conquer kingdoms for you?" Bruce silently retired, and passed his days in obscurity. Among those who professed their allegiance at this parliament was Robert Bruce the younger, earl of Carrick. After this, Edward took the most effectual methods of securing his new conquest. He ordered the estates of the clergy to be restored; and having received the fealty of the widows of many of the Scottish barons, he put them in possession of their jointure-lands, and even made a decent provision for the wives of many of his prisoners. Yet, though in every thing he behaved with great moderation towards the Scots, he committed the government of certain districts, and of the chief castles in the south of Scotland, to his English subjects, of whose fidelity and vigilance he thought himself assured. In order to conciliate the affections of the clergy, he granted to the Scottish bishops, for ever, the privilege of bequeathing their effects by will, in the same manner as that privilege was enjoyed by the archbishops and bishops of England. In honour of the "glorious confessor St Cuthbert," he gave to the monks of Durham an annual pension of 40 pounds, payable out of the revenues of Scotland, by the tenure of maintaining, before the shrine of the saint, two wax tapers of 20 pounds weight each, and of distributing twice a year one penny each to 3000 indigent persons. At

(D) This stone is thus described by W. Hemingford, tom. i. p. 37. "Apud monasterium de Scone positus erat lapis pergrandis in ecclesia Dei, juxta magnum altare, concavus quidem *ad modum rotundæ cathedræ confectus*, in quo futuri reges loco quasi coronationis ponebantur ex more. Rege itaque novo in lapide posito, missarum solemnia incepta peraguntur, et præterquam in elevatione sacri dominici corporis, semper lapidatus, mansit." And again, tom. i. p. 100. "In redeundo per Scone, præcepit tolli et Londoniis cariari, *lapidem* illum, in quo, ut supra dictum est, reges Scotorum solebant poni loco coronationis suæ, *et hoc in signum regni conquesti et resignati.*" Walsingham mentions the use to which Edward put this stone: "Ad Westmonasterium transtulit illum, jubens inde fieri celebrantium cathedram sacerdotum." This account of *the fatal stone* is here transcribed, that it may be compared with the appearance of the stone that now bears its name at Westminster.

Fordun has preserved the ancient rhymes concerning it; lib. xi. c. 25.

"Hic rex sic totam Scotiam fecit sibi notam,
Qui sine mensura tulit inde jocalia plura,
Et pariter lapidem, Scotorum quem fore sedem
Regum decrevit fatum; quod sic inolevit,
Ni fallat fatum, Scoti quocunque locatum
Invenient lapidem, regnare tenentur ibidem."

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At last, having settled every thing, as he thought, in tranquillity, he departed for England, with all the triumph of a conqueror.

134 New disturbances.

The tranquillity established by Edward was, however, of short duration. The government of Scotland at that time required many qualities which Edward's vicegerents did not possess. Warenne, earl of Surrey, who had been appointed governor, took up his abode in England, on pretence of recovering his health. Cressingham, the treasurer, was a voluptuous, proud, and selfish ecclesiastic; while Ormesby the justiciary was hated for his severity. Under these officers the administration of Edward became more and more feeble; bands of robbers infested the highways, and the English government was universally despised. At this critical moment arose Sir William Wallace, the hero so much celebrated in Scottish fables, by which indeed his real exploits are so much obscured, that it is difficult to give an authentic relation of them. The most probable account is, that he was the younger son of a gentleman (Wallace of Ellerslie) in Renfrewshire (E). Having been outlawed for some offence, he associated with a few companions, of fortunes equally desperate with his own. Wallace himself was endowed with great strength and courage, and an active and ambitious spirit; and by his affability, eloquence, and wisdom, he maintained an authority over the rude and undisciplined multitudes who flocked to his standard. In May 1297, he began to infest the English quarters; and being successful in his predatory incursions, his party became more numerous, and he was joined by Sir William Douglas. With their united forces, these two allies attempted to surprise Ormesby the justiciary, while he held his courts at Scone; but he saved himself by a precipitate flight. After this the Scots roved over the whole country, assaulted castles, and massacred the English. Their party was joined by many persons of rank; among whom were Robert Wishart bishop of Glasgow, the steward of Scotland (E), and his brother Alexander de Lindsay, Sir Richard Lundin, and Sir Andrew Moray of Bothwell. Young Bruce would have been a vast accession to the party; for he possessed all Carrick and Annandale, so that his territories reached from the frith of Clyde to Solway. But the wardens of the western marches of England suspected his fidelity, and summoned him to Carlisle. He obeyed, and made oath on the consecrated host, and on the sword of Becket, to be faithful and vigilant in the cause of Edward; and to prove his sincerity, he invaded with fire and sword the estate of Sir William Douglas, and carried off his wife and children. However, he instantly repented of what he had done: "I trust (said he), that the pope will absolve me from an extorted oath;" on which he abandoned Edward, and joined the Scottish army.

135 Sir William Wallace. An. 1297.

All this time Edward was in France, not in the least suspecting an insurrection among people whom he imagined he had thoroughly subdued. As soon as he received the intelligence, he ordered the earl of Surrey to suppress the rebels; but he declining the command of the army himself on account of his health, resigned it to his nephew, Lord Henry Percy. A great army, some say no fewer than 40,000 men, was now assembled, with which Percy marched against the Scots. He found them encamped at Irvine, with a lake in their front, and their flank secured by intrenchments, so that they could not be attacked without the utmost danger. The Scots, however, ruined every thing by their dissensions. Wallace was envied on account of his accomplishments, which had raised his reputation above the other officers, whose birth and circumstances were higher than his. His companions accordingly became jealous, and began to suggest, that an opposition to the English could only be productive of further national destruction. Sir Richard Lundin, an officer of great rank, formed

136 Dissensions of the Scots.

(E) The descent of Sir William Wallace has scarcely been carried with accuracy beyond his father, Wallace of Ellerslie. It has been supposed that the family of Wallace or Walleys, came originally from Wales; but according to Mr Chalmers, they were an Anglo-Norman family, originally denominated Walense, of whom Richard Walense, who appears as a witness to the charters of Walter, the son of Alan, the first of the Stewarts, acquired lands in Kyle, in Ayrshire, where he settled. This Richard was succeeded by his son Richard, who was cotemporary with Alan, the son of Walter the Stewart. Another branch of the family of Walense settled in Renfrewshire, under the kindly influence of the Stewarts; and of this branch Henry Walense, probably a younger son of the first Richard, held some lands in Renfrewshire under Walter the Stewart in the early part of the 13th century. From this Henry was descended Malcolm Waleys of Ellersly, the father of Sir William Wallace, the champion of Scottish independence.

We find that the family of Wallace was patronised by that of Stewart, which now began to make a distinguished figure in Scottish history. The genealogy of this illustrious house has been much disputed, and is involved in great obscurity. Mr Chalmers seems to have thrown considerable light on the origin of the Stewarts, and has traced them farther back than the generality of historians. According to this writer, Walter the son of Alan, who is generally considered as the first of the Stewarts, came from Shropshire in England, and his father Alan was the son of Flaald; and the younger brother of William, son of Alan, the progenitor of the famous house of Fitz-Alan, earls of Arundel. Alan the son of Flaald married the daughter of Warine, the famous sheriff of Shropshire, soon after the Norman conquest, in which both these families bore a part in the suite of William; and of this marriage was born William, the undoubted heir both of Alan and of Warine. Now, Richard Fitz-Alan, earl of Arundel, who in 1335 claimed the post of steward of Scotland by hereditary right, and sold this title and claim to Edward III. for 1000 merks, had not, according to Mr Chalmers, any right to the stewardship of Scotland; but Walter, the younger brother of William, the son of Alan, the progenitor of Richard Fitz-Alan the claimant, was the first purchaser of this hereditary office. Robert the Stewart, who was born of Margery, the daughter of Robert Bruce in 1316, and became king of Scots in 1370, was then in possession of the hereditary office of *Stewart* by lineal descent.

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formed a party against Wallace, and went over to Edward with all his followers. Other leaders entered into a negociation with the English. Bruce the steward, and his brother Alexander de Lindesay, and Sir William Douglas, acknowledged their offences, and made submissions to Edward for themselves and their adherents.

137 Most of them submit to the English.

This scandalous treaty seems to have been negociated by the bishop of Glasgow; and their recantation is recorded in the following words.—"Be it known to all men: Whereas we, with the commons of our country, did rise in arms against our lord Edward, and against his peace, in his territories of Scotland and Galloway, did burn, slay, and commit divers robberies; we therefore, in our own name, and in the name of all our adherents, agree to make every reparation and atonement that shall be required by our sovereign lord; reserving always what is contained in a writing which we have procured from Sir Henry Percy and Sir Robert Clifford, commanders of the English forces; at Irvine, 9th July 1297." To this instrument was subjoined, "Escrit a Sire Willaume;" the meaning of which Lord Hailes supposes to be, that the barons had notified to Sir William Wallace, their having made terms of accommodation for themselves and their party.

Edward accepted the submission of the Scottish barons who had been in arms, and granted liberty to those whom he had made prisoners in the course of the former year, on condition that they should serve him in his wars against France. The inconstancy of Bruce, however, was so great, that acknowledgments of submission or oaths of fealty were not thought sufficiently binding on him; for which reason the bishop of Glasgow, the Steward, and Alexander de Lindesay, became sureties for his loyalty and good behaviour, until he should deliver his daughter Margery as an hostage.

138 Wallace still holds out.

Wallace alone refused to be concerned in these shameful submissions; and, with a few resolute followers, resolved to submit to every calamity rather than give up the liberty of his country. The barons had undertaken to procure his submission as well as their own; but finding that to be impossible, the bishop of Glasgow and Sir William Douglas voluntarily surrendered themselves prisoners to the English. Edward, however, ascribed this voluntary surrender, not to any honourable motive, but to treachery. He asserted, that Wishart repaired to the castle of Roxburgh under pretence of yielding himself up, but with the concealed purpose of forming a conspiracy in order to betray that castle to the Scots; and in proof of this, Edward appealed to intercepted letters of Wishart. On the other hand, Wallace, ascribing the bishop's conduct to traitorous pusillanimity, plundered his house, and carried off his family captives.

Immediately after the defection of the barons at Irvine, Wallace with his band of determined followers attacked the rear of the English army, and plundered their baggage; but was obliged to retire, with the loss of 1000 men. He then found himself deserted by almost all the men of eminence and property. His army, however, increased considerably by the accession of numbers of inferior rank, and he again began to act on the offensive. While he employed himself in besieging the castle of Dundee, he was informed that the English army approached Stirling. Wallace, having charged the citizens of Dundee, under pain of death, to continue the blockade of the castle, hastened with all his troops to guard the important passage of the Forth; and encamped behind a rising ground in the neighbourhood of the abbey of Cambuskenneth. Brian Fitz-Allan had been appointed governor of Scotland by Edward; but Warenne, who waited the arrival of his successor, remained with the army. Imagining that Wallace might be induced by fair means to lay down his arms, he despatched two friars to the Scottish camp, with terms of capitulation. "Return," said Wallace, "and tell your masters, that we came not here to treat but to assert our right, and to set Scotland free. Let them advance, they will find us prepared." The English, provoked at this answer, demanded impatiently to be led on to battle. Sir Richard Lundin remonstrated against the absurdity of making a numerous army pass by a long narrow bridge in presence of the enemy. He told them that the Scots would attack them before they could form on the plain to the north of the bridge, and thus certainly defeat them: at the same time he offered to show them a ford, which having crossed with 500 horse, and a chosen detachment of infantry, he proposed to come round upon the rear of the enemy, and by this diversion facilitate the operations of the main body. This proposal being rejected, the English army began to pass over; which was no sooner perceived by Wallace, than he rushed down upon them, and broke them in a moment. Cressingham the treasurer was killed, and many thousands were slain on the field, or drowned in their flight. The loss of the Scots would have been inconsiderable, had it not been for that of Sir Andrew Moray, the intimate friend and companion of Wallace, who was mortally wounded in the engagement.

139 Gives the English a great defeat near Stirling. 12th September 1297.

The victory at Stirling was followed by the surrender of Dundee castle, and other places of strength in Scotland; at the same time the Scots took possession of Berwick, which the English had evacuated. But as a famine now took place in Scotland from bad seasons and the miseries of war, Wallace marched with his whole army into England, that he might in some measure relieve the necessities of his countrymen by plundering the enemy. This expedition lasted three weeks, during which time the whole tract of country from Cockermouth and Carlisle to the gates of Newcastle was laid waste with all the fury of revenge and rapacity; though Wallace endeavoured, as far as possible, to repress the licentiousness of his soldiers.

An. 1298.

In 1298, Wallace assumed the title of "Governor of Scotland, in name of King John, and by consent of the Scottish nation;" but in what manner this office was obtained, is now in a great measure unknown. In a parliament which he convoked at Perth, he was confirmed in his authority; and under this title he conferred the constabulary of Dundee on Alexander surnamed *Skrimgeour* and his heirs. This grant is said to have been made with the consent and approbation of the Scottish nobility, 29th March 1298. From this period, however, we may date the very great jealousy which took place between Wallace and the nobles who pretended to be of his party. His elevation wounded their pride; his great services reproached their inactivity in the public cause; and thus the councils of Scotland were perplexed with distrust and envy, when almost its very existence depended on unanimity.

140 Jealousy between Wallace and the barons.

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In June 1298, Edward, who had all this time been in Flanders, returned to England and summoned the Scottish barons, under pain of rebellion, to attend him in parliament; and, on their disobeying his summons, he advanced with his army towards Scotland. His main force, commanded by himself, assembled at Berwick; but a body of troops, under the Earl of Pembroke, having landed in the north of Fife, were defeated with great loss by Wallace, on the 12th of June. The same month Edward invaded Scotland by the way of the eastern borders. No place resisted him except the castle of Dirleton. After a resolute defence, it surrendered to Anthony Beck, bishop of Durham.

141 Scotland again invaded by Edward.

Meanwhile the Scots were assembling all their strength in the interior of the country. Few barons of eminence repaired to the national standard. They whose names are recorded, were John Comyn of Badenoch, the younger; Sir John Stewart of Bonkill, brother to *The Steward;* Sir John Graham of Abercorn; and Macduff, the grand-uncle of the young earl of Fife.—Robert Bruce again acceded to the Scottish party; and with his followers guarded the important castle of Ayr, which kept the communication open with Galloway, Argyleshire, and the isles.

The aim of Edward was to penetrate into the west, and there to terminate the war. He appointed a fleet, with provisions, to proceed to the frith of Clyde, and await his arrival in those parts. This precaution was absolutely necessary for the subsistence of his numerous army in a country impoverished and waste.

Waiting for accounts of the arrival of his fleet, he established his head-quarters at Templeliston, between Edinburgh and Linlithgow.

A dangerous insurrection arose in his camp. He had bestowed a donation of wine among his soldiers; they became intoxicated; a national quarrel ensued.—In this tumult the Welsh slew 18 English ecclesiastics. The English horsemen rode in among the Welsh, and revenged this outrage with great slaughter. The Welsh in disgust separated themselves from the army. It was reported to Edward, that they had mutinied, and gone over to the Scots: "I care not," said Edward, dissembling the danger; "let my enemies go and join my enemies; I trust that in one day I shall chastise them all."

Edward was now placed in most critical circumstances. As the fleet with provision had been detained by contrary winds, he could not venture to advance, neither could he subsist any longer in his present quarters. To retreat would have sullied the glory of his arms, and exposed him to the obloquy and murmurs of a discontented people. Yet he submitted to this hard necessity. Abandoning every prospect of ambition and revenge, he commanded his army to return to the eastern borders. At that moment intelligence arrived that the Scots had advanced to Falkirk.

Edward instantly marched against them. His army lay that night in the fields. While Edward slept on the ground, his war-horse struck him and broke two of his ribs. The alarm arose, that the king was wounded. They who knew not the cause, repeated the cry, "The king is wounded; there is treason in the camp; the enemy is upon us." Edward mounted on horseback, and by his presence dispelled the panic. With a fortitude of spirit superior to pain, he led on his troops. At break of day, the Scottish army was descried, forming on a stony field at the side of a small eminence in the neighbourhood of Falkirk.

142 The battle of Falkirk, 22d July 1298.

Wallace ranged his infantry in four bodies of a circular form. The archers, commanded by Sir John Stewart, were placed in the intervals. The horse, amounting to no more than a thousand, were at some distance in the rear. On the front of the Scots lay a morass. Having drawn up his troops in this order, Wallace pleasantly said, "Now I have brought you to the ring, dance according to your skill."

Edward placed his chief confidence in the numerous and formidable body of horsemen whom he had selected for the Scottish expedition. These he ranged in three lines. The first was led by Bigot Earl Marshal, and the earls of Hereford and Lincoln; the second by the bishop of Durham, having under him Sir Ralph Basset of Drayton; the third, intended for a reserve, was led by the king himself. No mention is made of the disposition of the infantry: it is probable that they were drawn up behind, to support the cavalry, and to annoy the Scots with their arrows and other missile weapons.

Bigot, at the head of the first line, rushed on to the charge. He was checked by the morass, which in his impetuosity he had overlooked. This obliged him to incline to the solid ground on his left, towards the right flank of the Scottish army. The bishop of Durham, who led the second line, inclined to the right, turned the morass, and advanced towards the left flank of the Scottish army. He proposed to halt till the reserve should advance. "To mass, bishop!" cried Basset, and instantly charged. The shock of the English cavalry on each side was violent, and gallantly withstood by the Scottish infantry; but the Scottish cavalry, dismayed at the number and force of the English men-at-arms, immediately quitted the field. Stewart, while giving orders to his archers, was thrown from his horse and slain. His archers crowded round his body and perished with him. Often did the English strive to force the Scottish circle. "They could not penetrate into that wood of spears," as one of their historians speaks. By repeated charges, the outermost ranks were brought to the ground. The English infantry incessantly galled the Scots with showers of stones and arrows. Macduff and Sir John Graham fell. At length the Scots were broken by the numbers and weight of the English cavalry; and the rout became universal.

143 The Scots defeated with great slaughter.

The number of the Scots slain in this battle must have been very great. As is commonly the case, it is exaggerated by the historians of the victors, and reduced too low by the historians of the vanquished.

On the side of the English the loss was inconsiderable. The only persons of note who fell were Brian le Jay, master of the English templars, and the prior of Torphichen in Scotland, a knight of another order of religious soldiery. (F)

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(F) This account of the action at Falkirk, extracted from Lord Hailes's *Annals*, is drawn, his Lordship informs us, from the testimony of the English historians. "They have done justice (he observes) to the courage and steadiness

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The Scots in their retreat burnt the town and castle of Stirling. Edward repaired the castle, and made it a place of arms. He then marched to the west. At his approach, Bruce burnt the castle of Ayr, and retired. Edward would have pursued him into Carrick; but the want of provisions stopped his further progress. He turned into Annandale, took Bruce's castle of Lochmaben, and then departed out of Scotland by the western borders.

Here may be remarked the fatal precipitancy of the Scots. If they had studied to protract the campaign, instead of hazarding a general action at Falkirk, they would have foiled the whole power of Edward, and reduced him to the necessity of an inglorious retreat.

An. 1299.

144 Abject condition of John Baliol.

In 1299 Edward thought proper to release John Baliol the unfortunate king of Scotland, whom he had kept close prisoner ever since the year 1296. Before this time Baliol had used the most disgraceful methods to recover his liberty. He had solemnly declared, that "he would never have any intercourse with the Scots; that he had found them a false and treacherous people; and that he had reason to suspect them of an intention to poison him." Notwithstanding all his protestations, Edward still detained him in captivity; but at last released him at the mediation of the pope, though after a singular form. He ordered the governor of Dover to convey him to the French coast, and there to deliver him to the papal nuncio, "with full power to the pope to dispose of Baliol and his English estate." In consequence of this he was conveyed to Whitsand, delivered to the nuncio in presence of a notary and witnesses, and a receipt taken for his person. Notwithstanding this abject state, however, the Scots continued to own him for their king, and to assert their national independence. Though the misfortune at Falkirk had deprived them of a very considerable extent of territory, they were still in possession of the whole country beyond the Forth, as well as the county of Galloway. By general consent William Lamberton bishop of St Andrew's, Robert Bruce earl of Carrick, and John Cummin the younger, were chosen guardians of Scotland in name of Baliol. Wallace at this time was reduced to the condition of a private man; nor had he any longer the command of the Scots armies, nor any share in their councils.—The new guardians undertook to reduce the castle of Stirling, and Edward prepared to defend it. The Scots posted themselves at the Torwood, and chose their ground judiciously, so that Edward could scarcely have raised the siege without dislodging them; which, finding impossible, he returned home in disgust. Next year he invaded Scotland on the west side, wasted Annandale, and reduced Galloway; but the Scots being now taught by experience to avoid a general action, chose their posts with such skill, that Edward could not penetrate farther; and the same year a truce was concluded with the Scots, to continue till Whitsunday 1301.

145 Edward obliged to retire.

146 The crown of Scotland claimed by Pope Boniface VIII. An. 1301.

This year appeared a new competitor for the crown of Scotland. Boniface VIII. in a bull directed to Edward, averred, that Scotland belonged anciently, and did still belong, to the holy see; and supported his extravagant claim by some strange authorities; such as, that Scotland had been miraculously converted by the relics of St Andrew: after which he proceeded to show the futility of Edward's pretensions, and that Scotland never had any feudal dependence on England. He required Edward to set at liberty all the Scottish ecclesiastics, particularly Wishart bishop of Glasgow, and to remove his officers from the patrimony of the church: "But (added he) should you have any pretensions to the whole, or any part of Scotland, send your proctors to me within six months; I will hear and determine according to justice; I take the cause under my own peculiar cognisance."

147 His pretensions answered by Edward and his parliament.

This interposition of the pope had probably been procured by Scottish emissaries at the court of Rome; but, however ridiculous his pretensions might be, they afforded matter of very serious consideration to Edward. After spending a whole winter in deliberations, Edward and his parliament made separate answers to the pope. The answer of the parliament was to the following purpose: All England knows, that ever since the first establishment of this kingdom, our kings have been liege-lords of Scotland. At no time has the kingdom of Scotland belonged to the church. In temporals, the kings of England are not amenable to the see of Rome. We have with one voice resolved, that, as to temporals, the king of England is independent of Rome; that he shall not suffer his independence to be questioned; and therefore that he shall not send commissioners to Rome. Such is, and such, we trust in God, ever will be, our opinion. We do not, we cannot, we must not, permit our king to follow measures subversive of that government which we have sworn to maintain, and which we will maintain."

148 A short truce concluded with Scotland.

The king entered into a more full refutation of the pope's arguments; and having, as he thought, answered them sufficiently, he marched again into Scotland: but, by the mediation of France, another truce was concluded, to last till St Andrew's day 1302.

149 Three bodies of the English defeated in one day. An. 1302.

After the expiration of the truce, Edward sent an army into Scotland, under the command of John de Segrave. This general divided his troops into three bodies; but, keeping them so far distant that they could not support each other, they were all engaged and defeated in one day by the Scots, near Roslin (see Roslin). This, however, was the last successful exploit of the Scots at this period. The pope deserted them; and the king of France concluded a peace with England, in which all mention of the Scots was industriously avoided; so that they were left alone to bear the whole weight of Edward's resentment, who now invaded their country in person with a mighty army. He met with no resistance in his progress, except from the castle of Brechin, which was commanded by Thomas Maule, a brave and experienced officer. He held out for 20 days against the whole power of the English army; but at last he was mortally wounded, and the place capitulated. Thence he proceeded northward, according to some historians, as far as Caithness. He then returned towards

150 Scotland invaded by Edward in person with a vast army.

steadiness of their enemies; while our historians represented their own countrymen as occupied in frivolous unmeaning contests, and, from treachery or resentment, abandoning the public cause in the day of trial."

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towards the south, and wintered in Dunfermline. In that place there was an abbey of the Benedictine order; a building so spacious, that, according to an English historian, three sovereign princes with all their retinue might have been lodged conveniently within its precincts. Here the Scottish nobles sometimes held their assemblies. The English soldiers utterly demolished this magnificent fabric.

151 The Scots army routed.

The only fortress that remained in the possession of the Scots was the castle of Stirling, where Sir William Oliphant commanded. To protect this single place of refuge, Cummin assembled all his forces. He posted his army on the south bank of the river, in the neighbourhood of Stirling, there to make the last stand for the national liberty. The Scots fondly imagined, that Edward would attempt to force the passage, as the impetuous Cressingham had attempted in circumstances not dissimilar. But the prudence of Edward frustrated their expectation. Having discovered a ford at some distance, he crossed the river at the head of his whole cavalry. The Scots gave way, and soon dispersed.

152 Capitulation with Edward.

All resources but their own courage had long failed them; that last resource failed them now, and they hastened to conciliate the favour of the conqueror. Previous to this, Bruce had surrendered himself to John de St John, the English warden. Cummin and his followers now submitted to Edward. They stipulated for their lives, liberties, and estates: reserving always to Edward the power of inflicting pecuniary mulets on them as he should see fit.

From the general conditions of this capitulation, the following persons were excepted: Wishart bishop of Glasgow, the Steward, Sir John Soulis, David de Graham, Alexander de Lindesay, Simon Fraser, Thomas Bois, and Wallace. With respect to them, it was provided, that the bishop of Glasgow, the Steward, and Soulis, should remain in exile for two years, and should not pass to the north of Trent; that Graham and Lindesay should be banished from Scotland for six months; that Fraser and Bois should be banished for three years from all the dominions of Edward, and should not be permitted, during that space, to repair to the territories of France. "As for William Wallace, it is agreed that he shall render himself up at the will and mercy of our sovereign lord the king, if it shall seem good to him." These were all the conditions that the Scottish nation stipulated for the man who had vanquished the English at Stirling, who had expelled them from Scotland, and who had once set his country free!

Amid this wreck of the national liberties, Wallace scorned submission. He lived a free man; a free man he resolved to die. Fraser, who had too often complied with the times, now caught the same heroic sentiments. But their endeavours to rouse their countrymen were in vain. The season of resistance was past. Wallace perceived that there remained no more hope; and sought out a place of concealment, where, eluding the vengeance of Edward, he might silently lament over his fallen country.

153 The castle of Stirling reduced, and Scotland subdued.

Edward assembled at St Andrew's what is called a *parliament*. Wallace, Fraser, and the garrison of Stirling, were summoned to appear: They appeared not, and sentence of outlawry was pronounced against them.

Edward now prepared to besiege the castle of Stirling; and, foreseeing that the reduction of this place would be attended with considerable difficulty, he stripped the abbey of St Andrew's of the lead which covered it, in order to employ the metal in bullets for his battering machines. Oliphant was solemnly summoned to surrender; but in vain. Edward drew out all his artillery, and battered the walls with stones of 200 pounds weight. The besieged, however, defended themselves with obstinacy, and killed a great number of the English: but at last they were obliged to surrender: and Edward, looking upon the conquest of Scotland as now complete, set out for York, and from thence to Lincoln.

Though Edward had thus met with all the success he could desire in his expeditions against the Scots, he could not but perceive that his dominion over them must be very precarious, as long as he held them in the subjection of a conquered people. He resolved therefore once more to renew his attempts for an union of the two kingdoms. He began with taking into favour the bishop of Glasgow, Robert Bruce, and John Mowbray, who, next to Bruce and the Cummins, was amongst the greatest of the Scottish nobility. To them he recommended the settling the affairs of their country, but in such a manner as to leave it in his power to effect the proposed union with England. This scheme, however, was by no means agreeable to Bruce; who had now no other competitor for the crown but Cummin, who was in a great measure incapable of opposing his designs; nor indeed could it ever be made agreeable to the bulk of the nation; and therefore came to nothing. Scotland, however, was subdued. Its inhabitants had renounced every idea of asserting their liberty, and only strove to make their court to the conqueror. Wallace alone remained an exception. Edward, who had received into favour those who had repeatedly proved traitors, showed a mean revenge against the only man who discovered a steady and honourable spirit, and whose friendship seemed worth the courting. Ralph de Haliburton, a prisoner, offered his assistance for discovering Wallace; and for this purpose he was granted a temporary liberty: but what he did in this very dishonourable employment is unknown. Certain it is that Wallace was discovered, and betrayed into the hands of the English, by Sir John Menteith, the sheriff of Dunbarton. This celebrated and heroic patriot was arraigned at Westminster as a traitor to Edward, and as having burnt villages, stormed castles, and slaughtered many subjects of England. Wallace denied his having been a traitor, and indeed with truth; for he had always been the avowed enemy of Edward, and had not at any time owned allegiance to him. But whatever his defences might have been, they were of no avail with a judge who had resolved on his destruction. Wallace was condemned to die a traitor's death, and the sentence was executed with the utmost rigour! In his last moments he asserted that independency which a degenerate nation had renounced. His head was placed on a pinnacle at London, and his mangled limbs were distributed over the kingdom.

154 Edward attempts an union between the two kingdoms in vain.

155 Wallace betrayed and executed, 23d August 1305.

After the death of Wallace, Edward thought of nothing but settling the affairs of Scotland as a conquered country; but he took care to preserve the ancient forms as far as was consistent with the dependent state of the nation. It has been said, indeed, that Edward abrogated all

156 Edward's precautions for settling the Scots affairs,

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all the Scottish laws and customs, and endeavoured to substitute the English in their stead; but this is denied by others. Lord Hailes gives us at length the record with respect to these laws, in the following words. "And, with respect to the laws and usages of the government of Scotland, it is ordained, that the *custom of the Scots and the Brets* shall for the future be prohibited, and be no longer practised. It is also ordained, that the king's lieutenant shall forthwith assemble the good people of Scotland; and that, at such assembly, shall be read over the statutes made by David king of Scots, and also the additions and amendments which have been made by other kings; and that the lieutenant, with the assistance which he shall then have, as well of Englishmen as of Scots, shall amend such of these statutes and usages as are plainly against the laws of God and reason, as they best may in so short a space, and in so far as they can without consulting the king; and as to matters which they cannot undertake to correct of themselves, that they be put in writing, and laid before the king by the lieutenant, and any number of commissioners, with parliamentary powers, whom the Scots shall think fit to choose. That they shall meet with commissioners appointed by the king, and finally determine as to the premises."

157 did not abrogate the ancient laws.

This is the record by which it is generally supposed that the law of Scotland was abrogated. But Lord Hailes is of opinion, that *the usage of the Scots and Brets* here mentioned was something different from the common law of the land. "We know (says he) from our statute-book, that the people of Galloway had certain usages peculiar to themselves; *Stat. Alex.* II. c. 2. One was, that causes were tried among them without juries [*Quon. Attach.* c. 72. 73. placed in some ancient MSS. among LL. David I. c. 15.] and this may probably have been the usage which Edward abolished. The people of Galloway were sometimes distinguished by the name of *Scots:* thus the *wild Scots of Galloway*, is an expression to be found in ancient instruments, and is proverbial even in our own days. *The usage of the Brets*, I take to be what relates to the judge called *brithibh*, or *brehon;* in Ireland, *brehan;* and consequently, that the thing here abolished was the commutation of punishments by exacting a pecuniary mulct."

158 Indemnity granted to the Scots.

An indemnity was now granted to the Scots on certain conditions. Various fines were imposed, from one to five years rent of the estates of the delinquents. One year's rent was to be paid by the clergy, excluding the bishop of Glasgow; two by those who were more early in their submissions than Cummin; three by Cummin and his associates; and five by the bishop of Glasgow; four years rent was to be paid by William de Baliol and John Wishart; and five by Ingelram de Umfraville, because they had stood out longer. Three years rent was also paid by the vassals of Baliol, Wishart, and Umfraville. These fines were to be paid in moieties. The person taxed was to pay half his income annually: and thus Umfraville, taxed in five years rent, was allowed ten years to discharge the fine. This was an express reservation to Edward of all the royal demesnes which Baliol might have alienated. There was also an exception for those who were already in custody, and those who had not yet submitted.

159 Overthrow of the Scottish government.

Thus, after a long and obstinate contest, was Scotland wholly reduced under the dominion of Edward. —Within *four months* was overthrown that system, which the incessant labour of *fifteen years* had established by craft, dissimulation, and violence, with a waste of treasure, and the effusion of much blood. The causes of this event are related as follows. Derverguill of Galloway had a son, John Baliol, and a daughter named Margery. John Cummin was the son of Margery, and, setting Baliol aside, was heir to the pretensions of Derverguill. He had for many years maintained the contest against Edward: but at last laid down his arms, and swore fealty to the conqueror; and as Baliol had repeatedly renounced all pretensions to the crown of Scotland, Cummin might now be considered as the rightful heir. His rival in power and pretensions was Bruce earl of Carrick. This young nobleman's grandfather, *the competitor*, had patiently acquiesced in the award of Edward. His father, yielding to the times, had served under the English banners. But young Bruce had more ambition, and a more restless spirit. In his earlier years he acted on no regular plan. By turns the partisan of Edward and the vicegerent of Baliol, he seems to have forgotten or stifled his pretensions to the crown. But his character developed itself by degrees, and in maturer age became firm and consistent. According to the traditionary report, Bruce made the following proposal to Cummin: "Support my title to the crown, and I will give you my estate; or give me your estate, and I will support your's." The conditions were properly drawn out and signed by both parties; but Cummin, either through fear or treachery, revealed the whole to Edward. On this the king showed Bruce the letters of his accuser, and severely questioned him; but the latter found means to pacify him by mild and judicious answers. Notwithstanding this, however, Edward still suspected him, though he dissembled his sentiments, until he should get the brothers of Bruce into his power, and then destroy all the family at once. The king having drunk freely one evening, informed some of his lords that he had resolved to put Bruce to death next day. The earl of Gloucester, hearing this resolution, sent a messenger to Bruce, with twelve pence and a pair of spurs, as if he intended to restore what he had borrowed. Bruce understood the meaning of his message, and prepared for flight. The ground was covered with snow, which would have discovered his flight; but it is said that Bruce ordered his farrier to invert the shoes of his horses, and immediately set out for Scotland in company with his secretary and groom. In his way he observed a foot-passenger, whose behaviour seemed to be suspicious, and whom he soon discovered to be the bearer of letters from Cummin to the English monarch, urging the death or immediate imprisonment of Bruce. The latter, filled with resentment, immediately beheaded the messenger, and set forward to his castle at Lochmaben, where he arrived the seventh day after his departure from London. Soon after this he repaired to Dumfries, where Cummin happened at that time to reside. Bruce requested an interview with him in the convent of the Minorites, where he reproached him with his treachery. Cummin gave him the lie, and Bruce instantly stabbed him; after which he hastened out of the convent, and called "To horse!" His attendants, Lindesay and Kirkpatrick, perceiving him pale, and in extreme agitation, inquired how it was with him? "Ill (replied Bruce); I doubt I have slain Cummin."

160 Edward's designs against the family of Bruce.

161 Robert Bruce makes his escape.

162 John Cummin.

Scotland.

min." "You doubt!" cried Kirkpatrick; on saying which, he rushed into the place where Cummin lay, and instantly despatched him. Sir Robert Cummin, a relation, attempted to defend his kinsman, and shared his fate. Bruce had now gone so far, that it was in vain to think of retracting; and therefore set himself in decided opposition to Edward. The justiciaries were then holding their court at Dumfries; and hearing what had happened, imagined their own lives to be in danger, and barricaded the doors. Bruce ordered the house to be set on fire: on which they surrendered; and Bruce granted them leave to depart out of Scotland without molestation.

163 Opinion of Lord Hailes concerning this event.

The above account of this catastrophe is taken from the Scots historians; those of England differ in many particulars. Lord Hailes supposes both to be wrong, and that the true circumstances of the quarrel are unknown. "My opinion (says he) is, that Bruce, when he met Cummin at Dumfries, had no intention of imbruing his hands in his blood, nor any immediate purpose of asserting his right to the crown of Scotland; that the slaughter of Cummin was occasioned by a hasty quarrel between two proud-spirited rivals; and that Bruce, from necessity and despair, did then assert his pretensions to the crown."

The death of Cummin affected the Scots variously, according to their different views and interests. The relations of the deceased viewed it as a cruel assassination, and joined with Edward in schemes of revenge. Some who wished well to the peace of their country, thought that it was better to submit quietly to the government of the English, than to attempt a revolution, which could not be effected without much danger and bloodshed; but, on the other hand, the friends of Bruce now saw the necessity of proceeding to the coronation of the new king without loss of time. The ceremony was therefore performed at Scone on the 25th of March 1306, in presence of two earls, the bishops of St Andrew's and Glasgow, the abbot of Scone, John de Athol, and John de Menteith. It had been customary, since the days of Macbeth, for one of the family of Fife to put the crown on the king's head; and Bruce found the prepossession of the Scots in favour of this circumstance so strong, that he was obliged to seek for an expedient to satisfy them. Macduff the earl of Fife was at that time in England, where he had married a near relation of Edward. His sister was wife to the earl of Buchan, one of the heads of the family of Comyn, and consequently the determined enemy of Robert. By an uncommon effort of female patriotism, she postponed all private quarrels to the good of her country, and in her husband's absence repaired, with all his warlike accoutrements, to Bruce, to whom she delivered them up, and placed the crown upon his head. This crown is said to have been made by one Conyers an Englishman, who narrowly escaped being punished for it by Edward.

An. 1306. 164 Robert crowned king of Scotland by a woman.

The king of England received intelligence of all these proceedings with astonishment; and without delay sent a body of troops under the command of Aymer de Valence earl of Pembroke to suppress the rebellion. Bruce omitted nothing for his defence. He had always been considered by his countrymen as a promising accomplished young nobleman, but firmly attached to Edward's person and government; for which reason he had not been trusted by those independent patriots who joined Wallace. But their confidence was now gained by his rendering himself so obnoxious to Edward, that no possibility of a reconciliation was left; and he soon saw himself at the head of a small army. With these, who consisted of raw and unexperienced soldiers, Bruce formed a camp at Methven near Perth, which last was the head-quarters of the enemy; but knowing the disadvantage under which he laboured from the inexperience of his men, he resolved to act on the defensive. The English general at last sent Bruce a challenge to fight him, which was accepted; but the day before the battle was to have been fought by agreement, the Scots were attacked by surprise, and totally defeated. Bruce behaved with the greatest valour, and had three horses killed under him. Being known by the slaughter which he made, John Mowbray, a man of great courage and resolution, rushed on him, and catching hold of his horse's bridal, cried out, "I have hold of the new-made king!" But he was delivered by Christopher Seaton.

165 He is defeated at Methven.

This disaster almost gave the finishing stroke to the affairs of Bruce. He now found himself deserted by a great part of his army. The English had taken prisoners great numbers of women whose husbands followed Bruce; and all those were now ordered, on pain of death, to accompany their husbands. Thus was Bruce burdened with a number of useless mouths, and found it hard to subsist. The consequence was, that most of his men departed with their families, so that in a few days his army dwindled down to 500. With these he retreated to Aberdeen, where he was met by his brother Sir Neil, his wife, and a number of other ladies, all of whom offered to follow his fortune through every difficulty. But, however heroic this behaviour might be, it put Bruce to some inconvenience, as he could scarcely procure subsistence; and therefore he persuaded the ladies to retire to his castle of Kildrommey, under the protection of Sir Neil Bruce and the earl of Athol. In the mean time the desertion among Bruce's troops continued, so that now he had with him no more than 200 men; and as winter was approaching, he resolved to go into Argyleshire, where Sir Neil Campbell's estate lay, who had gone before to prepare for his reception. In his way thither he encountered incredible difficulties; and some of his followers being cut off at a place called *Dalry*, the rest were so disheartened, that they all forsook him, excepting Sir Gilbert Hay, Sir James Douglas, and a few domestics. Bruce, however, kept up the spirits of his little party by recounting to them the adventures of princes and patriots in circumstances similar to his own. Having crossed Lochlomond in a small crazy boat, he was discovered by his trusty friend the earl of Lenox, who had been proscribed in England, and now lived in retirement on his own estate. The meeting between these friends was very affecting, and drew tears from the eyes of all present. Lenox, who had heard nothing of Bruce's misfortunes, furnished him and his half-famished attendants with plenty of provisions: but being soon made sensible that it was impossible for them to live in a place where they were well known, and surrounded by enemies, Bruce resolved to seek out some more safe habitation. For this purpose Sir Neil Campbell had already provided shipping; but our adventurers had scarcely set sail, when they were pursued by a large

166 Is distressed after the defeat.

167 Reaches Argyleshire with great difficulty.

168 Meets with the earl of Lenox;

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large squadron of the enemy's fleet. The bark which carried the earl of Lenox escaped with the utmost difficulty to Cantire, where Bruce was already landed: and, at their meeting, both agreed that they should never afterwards be separated while they remained alive.

169 with whom he flies to Cantire.

In the mean time Edward having compromised some differences with his English subjects, resumed his old project of entirely subduing Scotland; and his intention now appears to have been to divide the lands of such as he suspected of disaffection among his English followers. He ordered a proclamation to be made, that all who had any title to the honour of knighthood, either by heritage or estate, should repair to Westminster to receive all military ornaments, from his royal wardrobe. As the prince of Wales came under this denomination, he was the first who underwent the ceremony; which gave him a right to confer the like honour on the sons of above 300 of the chief nobility and gentry of England. The prince then repaired, at the head of his gallant train, to Edward; who received them, surrounded by his nobility, in the most solemn manner. The king then made a speech on the treachery of the Scots, whose entire destruction he denounced. He declared his resolution of once more heading his army in person; and he desired, in case of his death, that his body might be carried to Scotland, and not buried till signal vengeance was taken on the perfidious nation. Having then ordered all present to join him within fifteen days, with their attendants and military equipages, he prepared for his journey into Scotland. He entered the country soon after Bruce's defeat at Methven. The army was divided into two bodies; one commanded by the king himself, the other by the prince of Wales, and, under him, by the earls of Lancaster and Hereford, with orders to proceed northwards, and penetrate into the counties where the interest of Bruce was strongest. As he passed along, Edward caused all that fell into his hands, whom he suspected of favouring Bruce's party, to be immediately executed. The bishop of Glasgow was the only exception to this barbarity; he was taken, but had his life spared on account of his function.

170 Edward's preparations for a new invasion of Scotland.

171 Enters the country, and behaves with great cruelty.

In the mean time, as the prince of Wales continued his march northwards, Bruce's queen began to be alarmed for her own safety. She was advised to take sanctuary at the shrine of St Duthac in Ross-shire; but there she was made prisoner by William Earl of Ross, who was of the English party. By Edward's order she was sent to London; her daughter, who was taken at the same time being shut up in a religious house. The directions for the entertainment of the queen are still preserved. * She was to be conveyed to the manor of Brustewick; to have a waiting-woman and a maid-servant, advanced in life, sedate, and of good conversation: a butler, two men-servants, and a foot boy for her chamber, sober, not riotous, to make her bed: three greyhounds when she inclines to hunt; venison, fish, and the fairest house in the manor. In 1308, she was removed to another prison; in 1312, she was removed to Windsor castle, 20 shillings per week being allowed for her maintenance. In 1314, she was committed to Rochester castle, and was not set at liberty till the close of that year.

172 Robert's queen and daughter taken prisoners.

* *Fœdera*, tom. ii. p. 1015.

The only fortress which Bruce possessed in Scotland was the castle of Kildrommey; and it was soon besieged by the earls of Lancaster and Hereford. One Osburn treacherously burned the magazine; by which means the garrison, destitute of provisions, was obliged to surrender at discretion. The common soldiers were hanged; Sir Neil Bruce and the earl of Athol were sent prisoners to Edward, who caused them to be hanged on a gallows 50 feet high, and then beheaded and burnt. The countess of Buchan, who had crowned King Robert was taken prisoner; as was Lady Mary Bruce, the king's sister.

173 Kildrommey castle taken, and the garrison massacred.

About this time also many more of Bruce's party were put to death; among whom were Thomas and Alexander Bruce, two of the king's brothers, and John Wallace, brother to the celebrated Sir William. Bruce himself, in the mean time, was in such a desperate situation, that it was thought he never could give more disturbance; and it was even reported that he was dead. All his misfortunes, however, could not intimidate him, nor prevent his meditating a most severe revenge upon the destroyers of his family. He first removed to the castle of Dumbarton, where he was hospitably received and entertained by Angus lord of Kintyre; but, suspecting that he was not safe there, he sailed in three days to Rachrin, a small island on the Irish coast, where he secured himself effectually from the pursuit of his enemies. It was during his stay in this island, that the report of his death was generally propagated. Notwithstanding this, his party increased considerably; and, even when he landed on this island he was attended by 300 men. Having lived for some time in this retreat, being apprehensive that the report of his death might be generally credited among his friends in Scotland, it was resolved to attempt the surprise of a fort held by the English under Sir John Hastings, on the isle of Arran. This was performed with success by his two friends Douglas and Sir Robert Boyd, who put the greatest part of the garrison to the sword. The king, hearing of their success, passed over into Arran; but not knowing where his people resided, is said to have found them out by blowing a horn. He then sent a trusty servant, one Cuthbert, into his own country of Carrick; with orders, if he found it well affected to his cause, to light a fire on a certain point near his castle of Tunberry, whence it might be discerned in Arran. Bruce and his party perceived the signal, as they thought, and immediately put to sea. Their voyage was short; and as Bruce had now 100 men along with him, he resolved immediately to act on the offensive. His first exploit was to surprise his own castle of Tunberry, which had been given, along with Bruce's estate, to Lord Henry Percy. Him he drove out, along with the English garrison; but, in the mean time, he met with his servant Cuthbert, who gave him unpleasing intelligence. This man had met with very little encouragement on his landing in Scotland; in consequence of which he had not lighted the fire agreed upon as a signal of his success, that which Bruce had observed having been kindled by accident. He also told him, that the English were in full possession of the country, and advised his master to be on his guard. Soon after this the king was joined by a lady of fortune, who brought along with her 40 warriors. By her he was first particularly informed of the miserable fate of his family and relations; which, instead of disheartening, animated him the more with a desire of revenge. He did not immediately

174 Adventures of Robert.

175 He takes a fort on the isle of Arran,

176 and the castle of Tunberry in Carrick.

Scotland.

177 Douglas recovers his own estate.

ately attempt any thing himself, but allowed Douglas to attempt the recovery of his estate of Douglasdale, as Bruce himself had recovered his in Carriek. In this expedition Douglas was joined by one Thomas Dickson, a man of considerable fortune, who gave him intelligence concerning the state of the country. By his advice he kept himself private till Palm Sunday; when he and his followers with covered armour repaired to St Bride's church, where the English were performing divine service. The latter were surprised, but made a brave defence; though, being overpowered by numbers, they were at last obliged to yield. Douglas, without further resistance, took possession of his own castle, which he found well furnished with arms, provisions, and money. He destroyed all that he could not carry with him, and also the castle itself, where he knew that he must have been besieged if he had kept it.

178 The English twice defeated by Robert. An. 1307.

In 1307, the earl of Pembroke advanced into the west of Scotland to encounter Bruce. The latter did not decline the combat; and Pembroke was defeated. Three days after this, Bruce defeated with great slaughter another English general named Ralph de Monthermer, and obliged him to fly to the castle of Ayr. The king laid siege to the castle for some time, but retired at the approach of succours from England. This year the English performed nothing, except burning the monastery at Paisley. Edward, however, resolved still to execute his utmost vengeance on the Scots, though he had long been retarded in his operations by a tedious and dangerous indisposition. But now, supposing that his malady was decreased so far that he could safely proceed on his march, he offered up the horse-litter, in which he had hitherto been carried, in the cathedral church of Carlisle; and, mounting on horseback, proceeded on the way towards Solway. He was so weak, however, that he could advance no farther than six miles in four days; after which he expired in sight of that country, which he had so often devoted to destruction. With his dying breath he gave orders that his body should accompany his army into Scotland, and remain unburied until the country was totally subdued; but his son, disregarding this order, caused it to be deposited in Westminster abbey.

179 Death of Edward I.

The death of such an inveterate enemy to the Scottish name, could not fail of raising the spirits of Bruce and his party; and the inactive and timid behaviour of his son Edward II. contributed not a little to give them fresh courage. After having granted the guardianship of Scotland to his favourite, Piers de Gaveston earl of Pembroke, whom his father had lately banished, he advanced to Cumnock, on the frontiers of Ayrshire, and then retreated into England; conferring the office of guardian of Scotland upon John de Bretagne earl of Richmond, a fortnight after he had bestowed it on Gaveston. He was no sooner gone than Bruce invaded Galloway. The inhabitants refusing to follow his standard, he laid waste the country; but was defeated, and obliged to retire northwards by the guardian. In the north he overran the country without opposition; and soon began to move southwards again in order to repair his late disgrace. He was encountered by Cummin earl of Buchan with an undisciplined body of English, whom he entirely defeated and dispersed. But about this time he was seized with a grievous distemper, which weakened him so much, that no hopes were left of his recovery. In this enfeebled situation, he was attacked by the earl of Buchan and John Mowbray an English commander, who had assembled a body of troops in order to efface their late dishonour. The armies met at Inverury in Aberdeenshire. Bruce was too weak to support himself, and therefore was held upon horseback by two attendants: but he had the pleasure of seeing his enemies totally defeated, and pursued with great slaughter for many miles; and it is reported, that the agitation of his spirits on that day proved the means of curing him of his disease. This battle was fought on the 22d of May 1308.

180 Robert defeated in Galloway.

181 He defeats the English in his turn, and recovers from a dangerous disease. An. 1308.

The king of Scotland now took revenge on his enemies, after the manner of that barbarous age, by laying waste the country of Buchan with fire and sword. His successes had so raised his character, that many of the Scots who had hitherto adhered to the English cause, now came over to that of Robert. Edward, the king's brother, invaded Galloway, and defeated the inhabitants of that country. John de St John, an English commander, with 1500 horsemen, attempted to surprise him; but Edward Bruce having received timely information of his designs, ordered the infantry to entrench themselves strongly, while he himself, with not more than 50 horsemen, well armed, under cover of a thick mist, attacked his enemies, and put them to flight. After this he reduced all the fortresses in the country, and totally expelled the English. About this time also, Douglas, while roving about the hilly parts of Tweeddale, surprised and made prisoners Thomas Randolph the king's nephew, and Alexander Stewart of Bonkill, who had hitherto continued inimical to the interests of Robert. Randolph was conducted to the king, but talked to him in a haughty strain: on which his uncle sent him into close confinement.

182 Successes of Edward Bruce.

183 The lord of Lorn defeated, and his castle taken.

The next exploit of Robert was against the lord of Lorn, a division of Argyleshire. It was this nobleman who had reduced the king to such straits after his defeat at Methven; and Bruce now resolved to take ample revenge. Having entered the country, the king arrived at a narrow pass, where the troops of Lorn lay in ambush. This pass had a high mountain on the one side, and a precipice washed by the sea on the other; but Robert having ordered Douglas to make a circuit, and gain the summit of the mountain with part of the army, he entered himself with the rest. He was immediately attacked; but Douglas with his men rushed down the hill, and decided the victory in favour of the king; who soon after took the castle of Dunstaffnage, the chief residence of this nobleman.

184 Unsuccessful negociations for peace.

While Robert and his associates were thus gaining the admiration of their countrymen by the exploits which they daily performed, the English were so unsettled and fluctuating in their councils, that their party knew not how to act. Edward still imagined that there was a possibility of reconciling the Scots to his government; and for this purpose he employed William de Lambyrton, archbishop of St Andrew's, who after having been taken prisoner, and carried from one place of confinement to another, had at last made such submissions, as procured first his liberty, and then the confidence of Edward. This ecclesiastic having taken a most solemn oath of fidelity to Edward, now resolved to ingratiate himself, by publishing against Robert and his adherents a sentence of excommunication, which had been resolved

Scotland. An. 1309. resolved on long before. This, however, produced no effect; and the event was, that in 1309, through the mediation of the king of France, Edward consented to a truce with the Scots. This pacific disposition, however, lasted not long. The truce was scarcely concluded, when Edward charged the Scots with violating it, and summoned his barons to meet him in arms at Newcastle: yet, probably being doubtful of the event of the war, he empowered Robert de Umfraville and three others, to conclude a new truce; declaring, however, that he did this at the request of Philip king of France, as his dearest father and friend, but who was not to be considered as the ally of Scotland.

The new negociations were soon interrupted. They were again renewed; and in the beginning of the year 1310 the truce was concluded, but entirely disregarded by the Scots. The progress of Bruce now became very alarming to the English. The town of Perth, a place at that time of great importance, was threatened; and to relieve it, Edward ordered a fleet to sail up the river Tay: he also commanded the earl of Ulster to assemble a body of troops at Dublin, and thence to invade Scotland: his own barons were ordered to meet him in arms at Berwick. About the end of September, he entered Scotland; passed from Roxburgh, through the forest of Selkirk, to Biggar; thence he penetrated into Renfrew; and turning back by the way of Linlithgow, he retreated to Berwick, where he continued inactive for eight months.

185 Edward invades Scotland without success. An. 1310.

During this invasion, Robert had carefully avoided a battle with the English; well knowing, that an invasion undertaken in autumn would ruin the heavy-armed cavalry, on which the English placed their chief dependence. His cause was also favoured by a scarcity which prevailed at this time in Scotland; for as magazines and other resources of modern war were then unknown, the English army were greatly retarded in their operations, and found it impossible to subsist in the country.

186 Linlithgow castle surprised by the Scots. An. 1311.

The spirit of enterprise had now communicated itself to all ranks of people in Scotland. In 1311, the castle of Linlithgow was surprised by a poor peasant, named *William Binnock*. The English garrison were secure, and kept but a slight guard; of which Binnock being informed, concealed eight resolute men in a load of hay, which he had been employed to drive into the castle. With these, as soon as the gate was opened, he fell upon the feeble guard, and became master of the place; which was dismantled by Robert, as well as all the other castles taken in the course of the war.

Edward now resolved to invade Scotland again; and for this purpose ordered his army to assemble at Roxburgh. But Robert, not contented with defending his own country, resolved in his turn to invade England. He accordingly entered that country, and cruelly ravaged the bishopric of Durham. He returned loaded with spoil, and laid siege to Perth. After remaining six weeks before that place, he raised the siege, but returned in a few days; and having provided scaling ladders, approached the works with a chosen body of infantry. In a dark night he made the attack; and having waded through the ditch, though the water stood to his throat, he was the second man who reached the top of the walls. The town was then soon taken; after which it was plundered and burnt, and the fortifications levelled with the ground. This happened on the 8th January 1312.

187 Robert invades England, and takes Perth on his return. An. 1312.

Edward was now become averse to the war, and renewed his negociations for a truce; but they still ended in nothing. Robert again invaded England; burnt great part of the city of Durham; and even threatened to besiege Berwick, where the king of England had, for the present, fixed his residence. He next reduced the castles of Butel, Dumfries, and Dalswinton, with many other fortresses. The castle of Roxburgh, a place of the utmost importance, next fell into his hands. The walls were scaled while the garrison was revelling on the eve of Lent. They retreated into the inner tower; but their governor, a Frenchman, having received a mortal wound, they capitulated.

188 Invades England a second time with great success.

Randolph, the king's nephew, was now received into favour, and began to distinguish himself in the cause of his country. He blockaded the castle of Edinburgh so closely, that all communication with the neighbouring country was cut off. The place was commanded by one Leland, a knight of Gascony; but the garrison suspecting his fidelity, confined him in a dungeon, and chose another commander in his stead. One William Frank presented himself to Randolph, and informed him how the walls might be scaled. Randolph himself, with 30 men, undertook to scale the castle walls at midnight. Frank was their guide, and first ascended the walls; but before the whole party could reach the summit, an alarm was given, the garrison ran to arms, and a desperate combat ensued. The English fought valiantly till their commander was killed; after which they threw down their arms. Leland, the former governor, was released from his confinement, and entered into the Scottish service.

189 The castle of Edinburgh taken by Randolph.

In 1313, King Robert found the number of his friends increasing with his successes. He was now joined by the earl of Athol, who had lately obtained a grant of lands from Edward. This year, through the mediation of France, the conferences for a truce were renewed. These, however, did not retard the military operations of the Scots. Cumberland was invaded and laid waste: the miserable inhabitants besought Edward's protection; who commended their fidelity, and desired them to defend themselves. In the mean time, Robert, leaving Cumberland, passed over into the isle of Man, which he totally reduced. Edward found great difficulties in raising the supplies necessary for carrying on the war; but at last overcame all these, and, in the beginning of the year 1314, was prepared to invade Scotland with a mighty army. In March he ordered his ships to be assembled for the invasion; invited to his assistance Eth O'Connor, chief of the Irish of Connaught, and 26 other Irish chiefs; summoned them and his subjects in Ireland to attend his standard, and gave the command of these auxiliaries to the earl of Ulster. His barons were summoned to meet him at Berwick on the 11th of June; and 22,000 foot soldiers, from the different counties of England and Wales, were by proclamation required to assemble at Wark.

An. 1313. 190 Robert invades England, and reduces the isle of Man. An. 1314.

In the mean time, the successes of the Scots continued. Edward Bruce had reduced the castles of Rutherglen and Dundee, and laid siege to the castle of Stirling. The governor of the place agreed to surrender, if he should not be relieved before the 24th of June 1314; and to this Edward agreed, without consulting

191 Edward Bruce enters into an imprudent treaty with the governor of Stirling.

Scotland.

sulting his brother. The king was highly displeased with this rash treaty, which interrupted his own operations, allowed the English time to assemble their utmost force, and at last obliged him either to raise the siege or to place all on the event of a single battle. However, he resolved to abide by the agreement, and to meet the English by the appointed day. Having appointed a general rendezvous of his forces between Falkirk and Stirling, he found their number to amount to rather more than 30,000, besides upwards of 15,000 of an undisciplined rabble that followed the camp. He determined to await the English in a field which had the brook or *burn* of Bannock on the right, and Stirling on the left. His chief dread was the strength and number of the English cavalry, and these he took every method to oppose. The banks of the brook were steep in many places, and the ground between it and Stirling was partly covered with wood. The king commanded many pits, of about a foot in breadth and two or three feet deep, to be dug in all places where cavalry could have access. From the description given of them by the historians of those times, there seem to have been many rows of them, with narrow intervals. They were carefully covered with brushwood and sod, so that they might easily be overlooked by a rash and impetuous enemy. It is said by some authors, that he also made use of caltrops, to annoy the horses in the most effectual manner.

192 which brings on the decisive engagement of Bannockburn.

193 Disposition of the Scots.

On the 23d of June, the Scots received intelligence of the approach of Edward, and prepared to decide the fate of their country. The front of their army extended from the brook called *Bannockburn* to the neighbourhood of St Ninians, nearly upon the line of the present turnpike road from Stirling to Kilsyth; and the stone in which the king is said to have fixed his standard is still to be seen. Robert commanded all his soldiers to fight on foot. He gave the command of the centre to Douglas, and Walter the young steward of Scotland; his brother Edward had the command of the right wing, and Randolph that of the left; the king himself taking charge of the reserve, which consisted of the men of Argyle, Carrick, and the islanders. In a valley to the rear, said to be the westward of a rising ground now called *Gilles-hill*, he placed the baggage, and all the useless attendants on his army.

194 A party of English cavalry defeated by Randolph.

Randolph was commanded to be vigilant in preventing the English from throwing succours into the castle of Stirling; but 800 horsemen commanded by Sir Robert Clifford, made a circuit by the low grounds to the east, and approached the castle. The king, perceiving their motions, chid Randolph for his inadvertency, on which the latter hasted to encounter that body. As he advanced, the English wheeled to attack him. Randolph drew up his men in a circular form, holding out their spears on every side. At the first onset Sir William Daynecourt, an English commander of distinguished valour, was killed; but Randolph, who had only a small party with him, was surrounded on all sides, and in the utmost danger. Douglas perceived his danger, and requested the king to let him go to his assistance. Robert at first refused, but afterwards consented with reluctance. Douglas set out without delay; but as he approached he saw the English falling into disorder; upon which he called to his men to stop, and not diminish the glory of Randolph and his men by sharing their victory.

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195 An English knight killed in single combat by King Robert.

Robert was in the front of the line when the vanguard of the English appeared. He was meanly dressed, with a crown above his helmet, and a battle-axe in his hand. Henry de Bohun, an English knight, armed cap-a-pee, rode forward to encounter him. Robert did not decline the combat, and struck his antagonist so violently with his battle-axe, that he is said to have cleft him down to the chin; after which the English vanguard retreated in confusion. The Scottish generals are said to have blamed their king for his rashness in thus encountering Bohun; and he himself, conscious of the justice of their charge, replied only, "I have broken my good battle-axe."

196 Commanders of the English army.

On Monday the 24th of June, the whole English army moved on to the attack. The van, consisting of archers and lancemen, was commanded by Gilbert de Clare earl of Gloucester, nephew to the English king, and Humphry de Bohun constable of England; but the ground was so narrow, that the rest of the army had not sufficient room to extend itself; so that it appeared to the Scots as consisting of one great compact body. The main body was brought up by Edward in person, attended by Aymer de Valence earl of Pembroke, and Sir Giles d'Argentine, two experienced commanders. Maurice abbot of Inchaffray, placing himself on an eminence, celebrated mass in the sight of the Scottish army. He then passed along the front, barefooted, with a crucifix in his hands, and in few words exhorted the Scots to fight for their rights and liberty. The Scots fell down on their knees; which being perceived by Edward, he cried out, "They yield! See, they implore mercy." "They do," answered Umfraville, one of his commanders, "they do implore mercy, but not from us. On that field they will be victorious or die."

197 The English entirely defeated, 24th June 1314.

As both parties were violently exasperated against each other, the engagement began with great fury. The king of Scotland, perceiving that his troops were grievously annoyed by the English archers, ordered Sir Robert Keith the marischal, with a few armed horsemen, to make a circuit and attack the archers in flank. This was instantly accomplished; and as the weapons of the archers were useless in a close encounter, they could make very little resistance, while their flight spread disorder through the whole army.

Robert now advanced with the reserve; the whole English army was in the utmost confusion; for the defeat of the archers had decided the victory in favour of the Scots. The young and gallant earl of Gloucester attempted to rally the fugitives, but was thrown from his horse, and cut in pieces, which increased the general confusion. At this critical moment, the numerous attendants on the Scottish camp, prompted by curiosity or the desire of plunder, issued from their retirement. The English mistook them for a body of fresh troops coming to the assistance of their enemies, and fled with precipitation on all sides. Many sought refuge among the rocks in the neighbourhood of Stirling castle, and many were drowned in the rivers. Pembroke and Sir Giles d'Argentine had never quitted Edward during the action; but now, seeing the battle irretrievably lost, Pembroke constrained the king to quit the field. D'Argentine

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gentine refused to fly. He was a man of great valour, and had a high reputation in Scotland. According to the common opinion, the three most eminent worthies in that age were the emperor Henry of Luxemburg, Robert Bruce, and Giles d'Argentine. He is said to have thrice encountered two Saracen warriors in Palestine, and to have killed them both. His valour now availed him but little; for rushing into the midst of the Scots army, he was instantly cut in pieces. Douglas, with 60 horsemen, pursued Edward closely. At the Torwood he met Sir Lawrence Abernethy, who was hastening to the English rendezvous with twenty horsemen, The latter soon abandoned the cause of the vanquished, and joined Douglas in the pursuit of Edward, who fled to Linlithgow. He had scarcely arrived there, when he was alarmed by the approach of the Scots, and again obliged to fly. Douglas and Abernethy followed him with the greatest assiduity; but, notwithstanding their utmost efforts, Edward got safe to Dunbar, where he was received by the earl of March, who protected him till he could be conveyed by sea to England.

198 Edward escapes to Dunbar, and thence to England.

Such was the decisive battle of Bannockburn, the greatest defeat which the English ever sustained from the Scots. On the side of the latter no persons of note were slain, excepting Sir William Vipont, and Sir Walter Ross the favourite of Edward Bruce; and so grievously was Edward afflicted by the death of this man, that he exclaimed, "O that this day's work were undone, so Ross had not died!" On the English side were slain 27 barons and bannerets, and 22 taken prisoners; of knights there were killed 42, and 60 taken prisoners; of esquires there fell 700; but the number of the common men who were killed or taken was never ascertained. The Welsh who had served in the English army were scattered over the country, and cruelly butchered by the Scottish peasants. The English, who had taken refuge among the rocks in the neighbourhood of Stirling, surrendered at discretion: the castle was surrendered, and the privy seal of England fell into the hands of the king of Scots. The spoils of the English camp were immense, and enriched the conquerors, along with the ransom of many noble prisoners who fell into their hands. Robert showed much generosity in his treatment of the prisoners who fell to his share. He set at liberty Ralph de Monthermer, and Sir Marmaduke Twerge, two officers of high rank, without ransom; and by humane and generous offices alleviated the misfortune of the rest. The dead bodies of the earl of Gloucester and the lord Clifford were sent to England, that they might be interred with the usual solemnity. There was one Baston, a Carmelite friar and poet, whom Edward is said to have brought with him in his train to be spectator of his achievements, and to record his triumphs. Baston was made prisoner, and obliged to celebrate the victory of Robert over the English. This he did in wretched Latin rhymes; which, however, procured his liberty. After the battle of Bannockburn, the earl of Hereford retreated to the castle of Bothwell, where he was besieged by Edward Bruce, and soon obliged to surrender. He was exchanged for the wife, sister, and daughter of the king, the young earl of Mar, and the bishop of Glasgow.

199 Loss of the English in the battle of Bannockburn.

The terror of the English after the defeat of Bannockburn is almost incredible. Edward Bruce and Douglas entered England on the eastern side, ravaged Northumberland, and laid the bishopric of Durham under contribution. Thence they proceeded to Richmond, laid Appleby and some other towns in ashes, and returned home loaded with plunder. Edward summoned a parliament at York, in order to concert means for the public security; and appointed the earl of Pembroke, formerly the guardian of Scotland, to be guardian of the country between the Trent and the Tweed. Robert, however, sent ambassadors to treat for a peace; but the Scots were too much elated with their good fortune to make concessions, and the English were not yet sufficiently humbled to yield to all their demands. The ravages of war were again renewed: the Scots continued their incursions into England, and levied contributions in different places.

200 Inroads of the Scots into England.

In 1315, the English affairs seemed a little to revive. The Scots, indeed, plundered Durham and Hartlepool; but they were repulsed from Carlisle, and failed in an attempt on Berwick. The Irish of Ulster, oppressed by the English government, implored the assistance of Robert, and offered to acknowledge his brother Edward as their sovereign; who accordingly landed at Carrickfergus on the 25th of May 1315, with 6000 men.—This was an enterprise evidently beyond the power of Scotland to accomplish, and this could not but be perceived by Robert. There were, however, motives which induced him to consent. The offer of a crown, though ever so visionary, inflamed the ambition of Edward Bruce, whose impetuous valour disregarded difficulties, however great. It might have been deemed ungenerous, and perhaps would not have been politic or safe, to have rejected the proposals of the Irish for the advancement of his brother, to whom the king owed more than he could repay. Besides, the invasion of Ireland seemed a proper expedient for dividing the English forces. The event proved unfortunate. Edward, after performing and suffering more than could almost have been expected from human nature, was at last defeated and killed by the English, as is related under the article IRELAND, N° 42.

201 Expedition of Edward Bruce into Ireland. An. 1315.

202 He is defeated and killed.

The king himself had gone over into Ireland, in order to assist his brother in attempting the subjection of that country; and during his absence the English had made several attempts to disturb the tranquillity of Scotland. The earl of Arundel invaded the forest of Jedburgh with a numerous army; but being drawn into an ambuscade by Douglas, he was defeated with great loss. Edmund de Caillaud, a knight of Gascony and governor of Berwick, invaded and wasted Teviotdale; but while he was returning home loaded with spoil, he was attacked, defeated, and killed by Douglas. By sea the English invaded Scotland, and anchored off Inverkeithing in the frith of Forth, where they soon after landed. Five hundred men, under the command of the earl of Fife and the sheriff of that county, attempted to oppose their landing, but were intimidated by the number of their enemies. William Sinclair bishop of Dunkeld happened to meet the fugitives; and having by his reproaches obliged them to rally, he led them on again to the charge, and drove the English to their ships with considerable loss. For this exploit Robert conferred the title of *the king's bishop* on Sinclair; and he was long remembered by his countrymen on this account.

203 Unsuccessful attempts of the English on Scotland.

In 1317, after King Robert had returned from his Irish expedition, a bull was issued by the pope, (John XXII.)

204 Negotiations with the pope. An. 1317.

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XXII.) commanding a two years truce between England and Scotland, under pain of excommunication. Two cardinals were despatched into Britain to make known his commands; and they were privately empowered to inflict the highest spiritual censures on Robert Bruce, or whomsoever else they thought proper. About the beginning of September 1317, two messengers were sent to Robert by the cardinals. The king gave them a gracious reception; and after consulting with his barons, returned for answer, that he very much desired a good and lasting peace, either by the mediation of the cardinals, or by any other means. He allowed the *open* letters from the pope, which recommended peace, to be read in his presence, and listened to them with due respect. But he would not receive the *sealed* letters addressed to *Robert Bruce governor of Scotland*, alleging, that there might be many of his barons whose names were *Robert Bruce*, and that these barons might probably have some share in the government. Unless, therefore, the letters were addressed to him as *king of Scotland*, he could not receive them without advice of his parliament, which he promised immediately to assemble on the occasion. The messengers attempted to apologize for the omission of the title of KING. "The holy church was not wont," they said, "during the dependence of a controversy, to write or say any thing which might be interpreted as prejudicial to the claims of either of the contending parties." "Since, then," answered the king, "my spiritual father and my holy mother would not *prejudice* the cause of my adversary by bestowing on me the appellation of *king* during the dependence of the controversy, they ought not to have *prejudiced* my cause by withdrawing that appellation from me. I am in possession of the kingdom of Scotland; all my people call me king; and foreign princes address me under that title; but it seems that my parents are partial to their English son. Had you presumed to present letters with such an address to any other sovereign prince, you might perhaps have been answered in a harsher style; but I reverence you as the messengers of the holy see."

205 Spirited behaviour of Robert.

The messengers, quite abashed with this reply, changed the discourse, and requested the king that he would consent to a temporary cessation of hostilities; but to this he declared, that he never would consent while the English daily invaded and plundered his people. His counsellors, however, informed the messengers, that if the letters had been addressed to the *king of Scots*, the negociations would instantly have been opened. This disrespectful omission they imputed to the intrigues of the English at the court of Rome, hinting at the same time that they had received this intelligence from Avignon.

206 A papal truce proclaimed in Scotland.

When the messengers had informed the cardinals of these proceedings, the latter determined to proclaim the papal truce in Scotland; in which hazardous office they employed Adam Newton, guardian of the monastery of Minorites at Berwick, who was charged with letters to the clergy of Scotland, particularly to the bishop of St Andrews. The monk found the king encamped with his army in a wood near Old Cambus, making preparations for assaulting Berwick. Personal access was denied to the king; but the monk, in obedience to his masters, proclaimed the truce by the authority of the pope. The king sent him for answer, that he would listen to no bulls, till he was treated as king of Scotland, and had made himself master of Berwick.

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207 Which is disregarded by the king.

The poor monk, terrified at this answer, requested either a safe-conduct to Berwick, or permission to pass into Scotland, and deliver his letters to the Scottish clergy. Both were refused; and he was commanded to leave the country without loss of time. He set out for Berwick; but in his way thither was attacked by robbers, or some who pretended to be so. By them he was stripped and robbed of all his parchments, together with his letters and instructions; the robbers also, it is said, tore the pope's bull, without any regard to its sanctity.

208 Berwick besieged and taken by the Scots, An. 1318.

In 1318 King Robert proceeded in his enterprise against Berwick, but resolved to employ artifice as well as force in the reduction of it. A citizen of Berwick, by name *Spalding*, having been ill used by the governor, meditated revenge; and wrote a letter to a Scottish lord, whose relation he had married, offering on a certain night to betray the post where he kept guard. The nobleman communicated this important intelligence to the king. "You did well," said Robert, "in making me your confidant; for if you had told this either to Randolph or Douglas, you would have offended the one whom you did not trust: Both of them, however, shall aid you in the execution of the enterprise." The king then commanded him to repair to a certain place with a body of troops; to which place he also gave separate orders to Douglas and Randolph to repair at the same hour, each with a body of troops under his command. The forces, thus cautiously assembled, marched to Berwick, and, assisted by Spalding, scaled the walls, making themselves masters of the town in a few hours. The garrison of the castle, perceiving that the number of Scots were but small, made a desperate sally with the men who had fled into the castle from the town; but, after an obstinate conflict, they were defeated and driven back, chiefly by the extraordinary valour of a young knight named *Sir William Keith of Galston*.—This happened on the 28th of March 1318.

209 Who invade England with great success.

King Robert no sooner heard of the success of his forces against the town, than he hastened to lay siege to the castle of Berwick. This was soon obliged to capitulate; after which the Scots entered Northumberland, and took the castles of Wark, Harbottle, and Mitford. In May, they again invaded England, and penetrated into Yorkshire. In their progress they burnt the towns of Northallerton, Boroughbridge, Scarborough, and Skipton in Craven, forcing the inhabitants of Rippon to redeem themselves by paying 1000 merks: after which they returned to Scotland with much booty; and, as an English historian expresses it, "driving their prisoners before them like flocks of sheep."

This year the interposition of the pope was obtained against Robert, with a view to intimidate the Scottish nation; and the two cardinals residing in England were commanded to excommunicate *Robert Bruce and his adherents*, on account of his treatment of the messengers of the holy see, and his assault of Berwick, after a truce had been proclaimed by the papal authority.—This sentence was accordingly put in execution, though Robert had certainly been excommunicated *once*, if not oftener, before. Messengers were sent from Scotland to Rome, in order to procure a reversal of the sentence; but Edward despatched the bishop of Hereford, and Hugh d'Espencer

210 King Robert excommunicated by the Pope.

d'Espencer the Elder, to counteract this negociation, informing his holiness at the same time of certain intercepted letters which had been written from Avignon to Scotland; upon which the pope ordered all the Scots residing at Avignon, and all of that place who had corresponded with Scotland, to be taken into custody.

The most remarkable transaction of this year, however, was the defeat and death of Edward Bruce in Ireland; of which an account is given under the article IRELAND, N° 42. His body was quartered, and distributed for a public spectacle over Ireland; and his head was presented to Edward by John Lord Bermingham the commander of the English army; in return for which service, he was rewarded with the title of *earl of Lowth*.

In the mean time Edward, who had summoned a parliament to meet at Lincoln, was obliged to prorogue it on account of the Scottish invasion, and to assemble an army at York for the defence of his country. At Michaelmas it was determined, in a parliament held at London, that every city and town in England should furnish a certain proportion of men completely armed. Thus a considerable body of troops was soon raised; but, when they assembled at York, their party animosities and mutual distrust rose to such a height, that it was found necessary to send them back to their habitations.

In 1319, Edward, having succeeded so well in his negociations with the court of Rome, resolved to make similiar attempts with other powers to the prejudice of the Scottish nation. Accordingly he requested the count of Flanders to prohibit the Scots from entering his country: but to this request he received the following remarkable reply: "Flanders is the common country of all men; I cannot prohibit any merchants from trafficking thither, for such prohibition would prove the ruin of my people." Finding himself baffled in this attempt, the English monarch once more determined to have recourse to war; and with this view commanded his army to assemble at Newcastle upon Tyne, on the 24th of July 1319: but before he proceeded, he requested the prayers of the clergy for the success of his expedition; and, to render their prayers the more effectual, he at the same time demanded from them a great some of money by way of loan.

211 Edward again invades Scotland. An. 1319.

Every thing being now in readiness, the English army approached Berwick, which was commanded by Walter the steward of Scotland. This nobleman had long apprehended an attack from the English, and had taken every means of defence in his power. The enemy, however, confiding in their numbers, made a general assault; but were repulsed on the 7th of September, after a long and obstinate contest. Their next attempt was on the side towards the river. At that time the walls of Berwick were of an inconsiderable height; and it was proposed to bring a vessel close to them, from whence the troops might enter by a draw-bridge let down from the mast. But the Scots annoyed the assailants so much, that they could not bring this vessel within the proper distance; and at the ebb of the tide it grounded, and was burnt by the besieged.—The English had then recourse to a newly invented engine which they called a *sow*, but for what reason is unknown. In many particulars it resembled the *testudo arietaria* of the ancients. It appears to have been a large fabric composed of timber, and well roofed, having stages within it, and in height surpassing the wall of the town. It was moved upon wheels, and served for the double purpose of conducting the miners to the foot of the wall, and armed men to the storm. This machine was counteracted by one constructed by John Crab, a Flemish engineer in the Scots service. This was a kind of moveable crane, whereby great stones might be raised on high, and then let fall upon the enemy. The English made a general assault on the quarter towards the sea, as well as on the land side; so that the garrison, exhausted by continual fatigue, could scarce maintain their posts. The great engine moved on to the walls; and, though stones were incessantly discharged against it from the crane, their affect was so small, that all hope of preserving Berwick was lost. At length a huge stone struck it with such force, that the beams gave way, and the Scots pouring down combustibles upon it, it was reduced to ashes. The English, however, still continued the attack. The steward, with a reserve of 100 men, went from post to post, relieving those who were wounded or unfit for combat. One soldier of the reserve only remained with him when an alarm was given, that the English had burnt a barrier at the port called *St Mary's*, possessed themselves of the draw-bridge, and fired the gate. The steward hastened thither, called down the guard from the rampart, ordered the gate to be set open, and rushed out upon the enemy. A desperate combat ensued, and continued till the close of the day when the English commanders withdrew their troops.

212 Berwick besieged by the English.

213 A new invented engine called a *sow*,

214 destroyed by the Scots,

Notwithstanding this brave defence, it was evident that the town could not hold out long without a speedy relief; and Robert could not, with any probability of success, attack the fortified camp of the English. He therefore determined to make a powerful diversion in England, in order to oblige Edward to abandon the undertaking. By order of the king, 15,000 men entered England by the western marches. They had concerted a plan for carrying off the queen of England from her residence near York; but being disappointed in this attempt, they laid waste York-shire. The archbishop of York hastily collected a numerous body of commons and ecclesiastics, with whom he encountered the Scots at Mitton, near Boroughbridge, in the north riding of York-shire. The English were routed; 3000 were left dead on the field, and great part of those who fled perished in the river Swale. In this action 300 ecclesiastics lost their lives. The news of this successful inroad alarmed the besiegers of Berwick. The barons whose estates lay to the southward remote from the Scotish depredations were eager for continuing the siege. But they were opposed by those of the north; who were no less eager to abandon the enterprise, and return to the defence of their own country. With them the earl of Lancaster concurred in opinion; and understanding that his favourite manor of Pontefract was exposed to the ravages of the Scots, departed with all his adherents. Edward, on this, drew off the remainder of his army, and attempted to intercept Randolph and Douglas; but they eluded him, and returned in safety to Scotland.

215 who invade England.

216 The English defeated, and the siege of Berwick raised.

The unsuccessful event of this last attempt induced Edward seriously to think of peace; and accordingly a truce between the two nations was concluded on the

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21st of December 1319; which interval of tranquillity the Scots made use of in addressing a manifesto to the pope in justification of their cause. This was drawn up in a spirited manner, and made a very considerable alteration in the councils of Rome. The pope, foreseeing that Robert would not be terrified into submissions, ordered Edward to make peace with him in the best manner he could. A negociation was accordingly set on foot, which soon terminated ineffectually; the truce was not renewed, and in 1322 a mutual invasion took place. The Scots penetrated into Lancashire by the western marches; and, after plundering the country, returned home with an extraordinary booty; while Edward made great preparations for an expedition into Scotland, which took place in August the same year. In this, however, he was not attended with success. Robert had caused all the cattle to be driven off, and all the effects of any value to be removed from Lothian and the Merse: fixing his camp at Culross, on the north side of the frith of Forth. His orders for removing the cattle were so punctually obeyed, that according to common tradition, the only prey which fell into the hands of the English was a lame bull at Tranent in East Lothian. Edward, however, still proceeded, and penetrated as far as Edinburgh, but without any hopes of subduing the kingdom. His provisions being consumed, many of his soldiers perished for want; and he was obliged at last to retire without having seen an enemy. On their return, his soldiers burnt the abbeys of Holyrood, Melross, Dryburgh, &c. killed many of the monks, and commited many sacrileges: but when they returned to their own country, and began again to enjoy a plentiful living, they indulged themselves in such excesses as were productive of mortal diseases; insomuch that, according to an English historian, almost one half of the great army which Edward had brought from England with him, were destroyed either by hunger or gluttony.

217 England again invaded by the Scots, and Scotland by the English. An. 1322.

218 Great part of Edward's army destroyed.

No sooner were the English retired than they were pursued by the Scots, who laid siege to the castle of Norham. Edward lay at the abbey of Biland in Yorkshire, with a body of troops advantageously posted in the neighbourhood. The Scots, invited, as is said, by some traitors about the king's person, attemped to surprise him; and it was with the utmost difficulty that he made his escape to York, abandoning all his baggage and treasure to the enemy. The English camp was supposed to be accessible only by a narrow pass; but Douglas undertook to force it, and Randolph presented himself as a volunteer in this dangerous service under his friend Douglas. The Highlanders and men of the Isles climbed the precipice on which the English camp stood, and the enemy were driven out with great loss. The Scots pursued them to the very gates of York, wasted the country without controul, and returned home unmolested.

219 The English defeated and driven out of their camp.

Edward, disheartened by repeated losses, agreed to a cessation of arms "with the men of Scotland who were engaged in war with him." But the king of Scotland would not consent to it in that form; however, he gave his consent, on the proper form being employed, to which Edward now made no objection. This treaty was concluded on the 30th of March 1323, and was to endure until the 12th of June 1336. It was agreed, that during the continuance of it, no new fortresses should be erected in Cumberland, to the north of the Tyne, or in the counties of Berwick, Roxburgh, or Dumfries; and by a very singular article it was provided, that "Bruce and the people of Scotland might procure absolution from the pope; but in case there was no peace concluded before the expiration of the truce, that the sentence of excommunication should revive." The treaty was ratified by Robert, under the style of the *king of Scotland*, 7th June 1323.

220 A truce concluded between England and Scotland. An. 1323.

The next care of Robert was to reconcile himself to the church, and to obtain from the pope the title of *king*, which had been so long denied him; and this, though not without great difficulty, was at last obtained. This year a son was born to the king of Scotland at Dunfermline, and named *David*. The court-poets of the time foretold, that this infant would one day rival his father's fame, and prove victorious over the English. But scarcely had this future hero come into the world, when a rival began to make his appearance. John Baliol, the unfortunate king of Scotland, had long been dead; but left a son named *Edward*, heir of his pretensions to the crown. The young prince had resided on his paternal estate in Normandy, neglected and forgotten; but in 1324 he was called to the court of England, for the purpose, undoubtedly, of setting him up as a rival to young David Bruce, in case his father, now broken with fatigues, should die in a short time. The negociations for peace, however, still went on; but the commissioners appointed for this purpose made little progress, by reason of demands for feudal sovereignty still made by the English. The reconciliation with the church was also broken off, by reason of the Scots keeping possession of Berwick. This had been taken during the papal truce; and Robert thought proper still to lie under the sentence of excommunication rather than to part with such an important fortress.

221 Birth of David Bruce.

222 Edward Baliol makes his appearance at the court of England. An. 1324.

In the beginning of the year 1327, Edward II. was deposed, and succeeded by his son Edward III. then in his 15th year. He renewed the negociations for peace, and ratified the truce which his father had made; but hearing that the Scots had resolved to invade England if a peace was not immediately concluded, he summoned his barons to meet him in arms at Newcastle, and fortified York.—We are not certainly informed of the reasons which induced the Scots at this time to disregard the truce: however, it is certain, that on the 15th of June 1327, Douglas and Randolph invaded England by the western marches, with an army of 20,000 horsemen. Against them Edward III. led an army, consisting, at the lowest calculation, of 30,000 men, who assembled at Durham on the 13th of July. The Scots proceeded with the utmost cruelty, burning and destroying every thing as they went along; and on the 18th of the same month, the English discovered them by the smoke and flames which marked their progress. They marched forward in order of battle towards the quarter where the smoke was perceived; but, meeting with no enemy for two days, they concluded that the Scots had retired. Disencumbering themselves then of their heavy baggage, they resolved by a forced march to reach the river Tyne, and, by posting themselves on the north bank of that river, to intercept the Scots on their return. On the 20th of July, the cavalry having left the infantry behind, crossed the

223 Douglas and Randolph invade England. An. 1327.

224 Edw. III. marches against them.

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the river at Haidon: but before the rest of the army could come up, the river was so swelled by sudden rains, that it could no longer be forded; and thus the troops remained divided for several days, without any accommodation for quarters, and in the greatest want of provisions and forage. The soldiers now began to murmur; and it was resolved again to proceed southwards. The king proclaimed a reward of lands, to the value of 100*l.* yearly for life, to the person who should first discover the enemy "on dry ground, where they might be attacked;" and many knights and esquires swam across the river on this strange errand. The army continued its march for three days without any news of the Scots; but on the fourth day, certain accounts of them were brought by an esquire, Thomas Rokesby: who reported, that "the Scots had made him prisoner; but that their leaders, understanding his business, had set him at liberty; saying, that they had remained for eight days on the same ground, as ignorant of the motions of the English as the English were of theirs, and that they were desirous and ready to combat." With this man for their guide, the English soon came in view of the Scots. They were advantageously posted on a rising ground, having the river Were in front, and their flanks secured by rocks and precipices. The English dismounted and advanced, hoping to allure the Scots from their strong post; but in vain. Edward then sent a herald to Randolph and Douglas, with a message in the style of chivalry: "Either," says he, "suffer me to pass the river, and leave me room for ranging my forces; or do you pass the river, and I will leave you room to range yours; and thus shall we fight on equal terms." To this the Scottish commanders answered, "We will do neither. On our road hither we have burnt and spoiled the country; and here we are fixed while to us it seems good; and if the king of England is offended, let him come over and chastise us."

225 Is obliged to offer a reward for discovering where they are.

The armies continued in sight of each other for two days: after which the English, understanding that their enemies were distressed for provisions, resolved to maintain a close blockade, and to reduce them by famine. Next day, however, they were surprised to find that the Scots had secretly decamped, and taken post two miles up the river in ground still stronger, and of more difficult access, amidst a great wood. The English encamped opposite to them near Stanhope park. At midnight Douglas undertook a most desperate enterprise, resembling those of the ancient heroes. With 200 horsemen he approached the English camp, and entered it under the guise of a chief commander calling the rounds. Having thus eluded the centinels, he passed on to the royal quarters, overthrew every thing that opposed him, and furiously assaulted the king's tent. The domestics of Edward desperately defended their master: and his chaplain, with many others of his household, were slain. The king himself, however, escaped; and Douglas, disappointed of his prey, rushed through the enemy, and effected a retreat with inconsiderable loss.—The following day, the English learned from a prisoner, that orders had been issued in the Scottish camp for all men to hold themselves in readiness that evening to follow the banner of Douglas: on which, apprehending an attack in the night, they prepared for battle, lighting great fires, and keeping a strict watch; but in the morning, they were informed by two trumpeters whom they had taken prisoners, that the Scots had decamped before midnight, and were returning to their own country. This report could scarcely be credited, and the army remained for some hours in order of battle; but at length some scouts having crossed the river, returned with certain intelligence that the Scottish camp was totally deserted: which when the young king of England was certainly informed of, he is said to have burst into tears. Every preparation had been made by him for opposing an enemy, and auxiliaries had even been procured at a most enormous expense at Hainault. These auxiliaries consisted of heavy-armed cavalry; and they were now so much worn out, that they could scarcely move. Their horses were all dead, or had become unserviceable, in a campaign of three weeks; so that they were obliged to procure horses to convey themselves to the south of England. Edward having rested at Durham for some days, marched to York, where he disbanded his army. Barbour, a Scots historian, relates, that there was a morass in the rear of the Scottish camp, which he calls the *two-mile morass;* that the Scots made a way over it with brushwood, removing it as they went along, that the English might not pursue them by the same way. The English histories are filled with descriptions of the strange appearance of the deserted camp of the Scots. They found there a number of skins stretched between stakes, which served for kettles to boil their meat; and for bread, each soldier carried along with him a bag of oatmeal, of which he made cakes, toasting them upon thin iron plates, which are supposed to have been part of their armour.

226 Desperate attempt of Douglas to carry off the king of England.

227 The Scots decamp, and return to their own country.

On the return of Douglas and Randolph, the king led his army against the eastern borders, and besieged the castle of Norham. But in 1328, Edward, wearied out with continual losses and disappointments, consented to a perpetual peace between the two kingdoms on the following conditions. 1. The stone on which the kings of Scotland were wont to sit at the time of their coronation shall be restored to the Scots. 2. The king of England engages to employ his good offices at the papal court for obtaining a revocation of all spiritual processes depending before the holy see against the king of Scots, or against his kingdom or subjects. 3. For these causes, and in order to make reparation for the ravages committed in England by the Scots, the king of Scots shall pay 30,000 merks to the king of England. 4. Restitution shall be made of the possessions belonging to ecclesiastics in either kingdom, whereof they may have been deprived during the war. 5. But there shall not be any restitution made of inheritances which have fallen into the hands of the king of England or of the king of Scots, by reason of the war between the two nations, or through the forfeiture of former possessors. 6. Johanna sister of the king of England shall be given in marriage to David, the son and heir to the king of Scots. 7. The king of Scots shall provide the princess Johanna in a jointure of 2000*l.* yearly, secured on lands and rents, according to a reasonable estimation. 8. If either of the parties shall fail in performing these conditions, he shall pay 2000 pounds of silver to the papal treasury. The marriage of the infant prince was celebrated on the 12th of July 1328.

228 The treaty of Northampton, A.D. 1328.

On the 7th of June 1329 died Robert Bruce, undoubtedly the greatest of all the Scottish monarchs. His death seems to have been occasioned by the excessive

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sive fatigues of military service; and his disease, called by the historians of those times a leprosy, was probably an inveterate scurvy, occasioned by his way of living. He died at the age of 55. He was married to Isabella, daughter of Donald the tenth earl of Marr; by whom he had a daughter named Margery, married to Walter the steward of Scotland; whose husband died in 1326. The second wife of Robert was Elizabeth, the daughter of Aymer de Burgh earl of Ulster. By her he had a son, David II.; a daughter named Margaret, married to William earl of Sutherland; another, named Matilda, married to an esquire named Thomas Isaac; and Elizabeth, married to Sir Walter Oliphant of Gask. He had also a natural son named Robert.

230 Account of a conspiracy against him.

That King Robert I. was a man of unquestionable virtue and humanity, as well as unequalled in the knowledge of the military art, must be evident from many particulars already related. The only questionable part of his character is his severe punishment of a conspiracy formed against him in the year 1320; a relation of which, to avoid interrupting our detail of more important matters, we have deferred till now.—The chief of the conspirators were William de Soulis, whose ancestor had been a candidate for the crown of Scotland; the countess of Strathern, and some other persons of high rank. The countess discovered the plot; after which Soulis confessed the whole, and was punished with perpetual imprisonment; as well as the countess, notwithstanding her having made the discovery. Gilbert de Malyerb and John de Logie, both knights, and Richard Brown an esquire, were put to death as traitors: but the person most lamented was Sir David de Brechin, for his bravery styled *the flower of chivalry*. He was nephew to the king, and served with great reputation against the Saracens. To him the conspirators, after having exacted an oath of secrecy, revealed their designs. He condemned their undertaking, and refused to share in it; but did not discover it, on account of the oath he had taken. Yet for this concealment he was tried as a traitor, condemned and executed, without regard to his personal merit or his relationship to the king. The conspirators were tried before the parliament at Scone in 1320; and this session, in which so much blood was shed, was long remembered by the people under the name of the *black parliament*. Whether there was any thing real in this conspiracy, or whether the king only made use of this pretence to rid himself of such as were obnoxious to him, cannot now be known with certainty.

231 State of Scotland at the death of Robert I.

The reign of Robert Bruce is distinguished by great efforts, and occasioned considerable changes both in property and in power, though it is treated by historians rather as a period of romantic adventures, than as an age of uncommon revolutions. However few and unimportant were his first supporters when he set out for Scone, he was crowned with the applause of an indignant people. His successes, when he began to try his skill and valour against such gallant soldiers as the English, were not equal either to his views or his expectations. It was the battle of Bannockburn that decided the fate of Bruce, and secured the independence of Scotland. After many conflicts of various success, the English government was induced to acknowledge the regal title of Bruce and the independence of the Scottish nation.

The revolution that took place when the Saxon race of kings ascended the throne of Scotland, was scarcely greater than the changes which happened under the great restorer of the Scottish monarchy. Some of the most eminent families in North Britain fell before the fortune of Bruce, and forfeited their all to his offended laws. Many subordinate barons, who owed fealty to those unfortunate families, rose on their ruined estates, and thus ceased to be vassals to superior lords. Some of the greatest offices, which had been hereditary in those eminent houses, passed, with large possessions, into new families, and raised them to unwonted greatness. It is not perhaps too much to say, when we assert, that one half of the forfeited lands of Scotland were conferred on new proprietors, who gave a different cast to the population of a mixed people. It was the fault of Bruce, that he sometimes sacrificed his policy to his gratitude; but, much as the gratitude or munificence of that great prince bestowed on those who had fought by his side in many a conflict, he attempted not to deprive those who were innoxious to law of their possessions. Yet we have been told, that, in order to check the growing power of his nobles, he summoned them to show by what right they held their lands; and that, in reply to this inquiry, they drew their swords, and exclaimed, "By these we acquired our lands, and with these we will defend them." This brilliant passage, which has made such a figure in the fabulous history of those times, and has been brought forward by the rhetoricians of the present day as a beautiful instance of the effect of passion in inverting the usual order of words, appears to have little foundation in historic truth. We have no example of any man in Scotland claiming lands by right of conquest; and, during the reigns of Bruce and his son David, there was no other right to lands, except ancient possession, or the grant of the king. *

* *Chalmers's Caledonia*, vol. i.

As the accession of Robert Bruce forms a new and brilliant era in the history of Scotland, it may be proper, before we proceed in our narration, to take a general view of the state of manners in North Britain during the interval that elapsed from the 11th to the 14th century. In this inquiry, we must carefully distinguish between the Gaelic and English inhabitants of Scotland. The former were the most numerous during the whole of this period. The government was administered by Scoto-Saxon kings, on Anglo-Norman principles, with the assistance of Anglo-Saxon barons. To these sources must be traced the maxims of the governors and the customs of the governed. Chivalry, with its notions and pursuits, was no sooner introduced into England by the Normans, than it was adopted by the Scoto-Saxon inhabitants of North Britain. Before the reign of Malcolm IV. it had become a sort of maxim, that a prince could scarcely be considered as a king before he had received the honour of knighthood; and before the accession of Alexander III. this maxim was so fully established, that it was deemed unfit, or perhaps unlawful, to crown their sovereign before he had been knighted. The barons, in this respect, followed the example of their sovereigns, by seeking knighthood, at the peril of life, through many a bloody field. Thus chivalry, which had been unknown in Celtic Scotland, was fully established before the time of Robert Bruce; and armorial bearings were universally worn by the nobility. Before the conclusion of this period, the Scottish bi-

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shops quartered the arms of their families, with the badges of their sees; but the establishment of heralds, with a lord-lyon at their head, is of a much more modern date.

The mode of living, the virtues, the vices, of the ordinary classes of people, both in South and North Britain, were nearly the same, as they were of the same extraction. The manners of the nobles were warlike, and their diversions were analogous to their manners. Of these, tournaments were the most splendid; hunting and hawking, the most frequent amusements. The kings were the great hunters, in imitation of the Norman sovereigns of England; and they had in every county a vast forest, with a castle for the enjoyment of their favourite sport. Attached to every forest there was a forester, whose duty it was to take care of the game. The bishops and barons had also their foresters, with similar powers. The king had his falconer; an office which, like that of steward and some others, gave a surname to one of the principal families of Scotland.

Of the domestic pastimes of those rustic ages, there are but few notices. When David led his army to the battle of the Standard (see N° 92.), his varied people were amused by gestures, dancings, and buffoons. The amusements of the same classes of people, in the two kingdoms, were pretty much the same during those congenial ages. As the English kings had their minstrels, so the Scottish kings had their harpers and their trumpeters.

The education of such a people was similar to their manners. As early as the reign of David I. public schools seem to have existed in the principal towns of North Britain. The monks, who were ambitious of engrossing the education of the youth, obtained grants of the principal seminaries; and the children of the most honourable parents were educated in the monasteries. The abbots had sufficient liberality to encourage the studies of the monks, in order to qualify them for becoming the instructors of youth.

It may be easily supposed, that the speech of the inhabitants derived a tinge from that of their masters, who were not always natives of North Britain. At the beginning of the present period, the universal language of Scotland, if we except the district of Lothian, was Gaelic; but, towards the end of this period, the language was considerably changed, especially in the southern districts, where it was much the same as that spoken in South Britain in the 11th and 12th centuries.

The manners which were most remarkable, and attended with the most lasting effects, were produced by that religious zeal which prevailed among all ranks of men, from the highest to the lowest. All were active to endow or to enrich a monastery, according to their circumstances; and many persons of rank were studious to be received into the fraternity of some ecclesiastical community. It was thought an object of great consequence to be buried in the consecrated ground of some religious house; and, to obtain this end, many lands and other property were bestowed upon the monks. Every monastery had its roll of benefactors, and many a heart beat with desire to be added to the sacred list. Feasts were made, and masses said, for the souls of those persons who had made the largest donations to the monks; and particular monks were sometimes maintained to pray for the soul of the giver. The same energetic principle, which induced the people of that religious age to build chapels and erect churches, prompted them to found magnificent cathedrals, and to delight in the parade of splendid worship. The age was warlike as well as religious. The dignified clergy did not scruple to put on armour with their cassocks. The bishops and abbots, as well as the barons, had their esquires and armour-bearers, whom they rewarded with lands.

In the wars of these times, defensive armour was not commonly worn by the Scottish soldiers. The people retained the weapons of their ancestors, and their only defence was a buckler or target of leather. Their chief offensive weapons were, a spear of enormous length, and swords of unskilful workmanship. Their men-at-arms, or cavalry, were accoutred like the same class of soldiers in England, as they were the descendants of Englishmen.

232 Randolph appointed regent.

After the death of Robert, the administration was assumed by Randolph, in consequence of an act passed in 1318, by which he was appointed regent in case of the king's death. In his new character he behaved himself in a most exemplary manner; and by impartially discharging the duties of his station, and rigidly administering justice, he secured the public tranquillity in the most perfect manner. A severe exercise of justice was now rendered indispensable. During a long course of war, the common people had been accustomed to plunder and bloodshed; and having now no English enemies to employ them, they robbed and murdered one another. The methods by which Randolph repressed these crimes were much the same with those which have been adopted in latter times; for he made the counties liable for the several robberies committed within their bounds. He even ordered the farmers and labourers not to house the tools employed by them in agriculture during the night-time, that the sheriff's officers might be the more vigilant in securing them. He gave orders for severely punishing all vagabonds, and obliged them to work for their livelihood; making proclamation, that no man should be admitted into a town or borough who could not earn his bread by his labour. These regulations were attended with the most salutary effects. A fellow who had secreted his own plough-irons, pretending that they were stolen, being detected by the sheriff's officers, was instantly hanged. A certain man having killed a priest, went to Rome, and obtained absolution from the pope; after which he boldly returned to Scotland. Randolph ordered him to be tried, and, on his conviction, to be executed: "Because," said he, "although the pope may grant absolution from the spiritual consequences of sin, he cannot screen offenders from civil punishment."

233 His excellent administration.

234 Douglas sent out for the Holy Land with King Robert's heart. An. 1330.

King Robert, just before his death, had desired that his heart might be deposited in our Saviour's sepulchre at Jerusalem; and on this errand the great commander Douglas was employed, who set sail in June 1330 with a numerous and splendid retinue. He anchored off Sluys in Flanders, the great emporium of the Low Countries, where he expected to find companions in his pilgrimage; but learning that Alphonso XI. the young king of Leon and Castile, was engaged in a war with Dayan the Moor, he could not resist the temptation of fighting against the enemies of Christianity. He met with an honourable reception at the court of Spain, and readily obtained

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obtained leave to enter into what was thought the common cause of Christianity. The Spaniards first came in sight of the enemy near Theba, a castle on the frontiers of Andalusia, towards the kingdom of Granada. The Moors were defeated; but Douglas giving way to his impetuous valour, pursued the enemy too eagerly, and throwing among them the casket which contained the heart of his sovereign, cried out, "Now pass thou onward as thou wert wont: Douglas will follow thee or die." The fugitives rallied and surrounded Douglas: who, with a few of his followers, were killed in attempting to rescue Sir Walter St Clair of Roslin. His body was brought back to Scotland, and interred in the church of Douglas. His countrymen perpetuated his memory by bestowing upon him the epithet of *the good Sir James Douglas*. He was one of the greatest commanders of the age; and is said to have been engaged in 70 battles, 57 of which he gained, and was defeated in 13.—Of him it is reported, that meeting with an officer at the court of Alphonso, who had his face quite disfigured with scars, the latter said to him, "It astonishes me, that you, who are said to have seen so much service, should have no marks of wounds on your face." "Thank heaven," answered Douglas, "I had always an arm to protect my face."

235 Is killed by the Moors in Spain.

236 Edward Baliol claims the crown of Scotland. An. 1331.

In 1331, Edward Baliol began to renew his pretensions to the crown of Scotland, about the same time that David II. and his consort Johanna were crowned at Scone; which ceremony was performed on the 24th of November. Some historians relate, that he was excited to this attempt by one Twynham Lowrison, a person who had been excommunicated for refusing to do penance for adultery, and afterwards was obliged to fly on account of his having way-laid the official, beaten him, and extorted a sum of money from him. But however this be, it is certain, that in this year differences began to arise with England, on the following account. It had been provided by an article of the treaty of Northampton, that "Thomas Lord Wake of Ledel, Henry de Beaumont, called *earl of Buchan*, and Henry de Percy, should be restored to their estates, of which the king of Scots, by reason of the war between the two nations, had taken possession." This article had been executed with respect to Percy, but not to the other two; and though Edward had repeatedly complained of this neglect, he could not obtain any satisfaction. (G)

The disinherited barons now resolved to invade Scotland, though their force consisted of no more than 3000 infantry, and 400 men at arms. Edward would not permit them to enter Scotland by the usual way, as he himself did not yet choose openly to take part in their quarrel. For this reason they were obliged to take shipping, and landed at a place called *Ravenshare*, *Ravenspur*, or *Ravensburgh*, at the mouth of the Humber. Randolph, having intelligence of the English preparations, had marched an army to the frontiers of East Lothian; but, being afterwards informed of the naval armament, he marched northwards; but died at Musselburgh, six miles east of Edinburgh, on the 20th of July 1332. With him died the glory of Scotland. The earl of Marr, a man whose only merit consisted in his being related to the royal family, was chosen to succeed him in the regency.—Edward, in the mean time, fell on a most curious expedient to show the justice of his cause. In March 1332, he had published a prohibition for any person to infringe the treaty of Northampton. The disinherited lords had been suffered to embark, expressly for the purpose of invading Scotland, after this prohibition was published. *After they were gone*, Henry de Percy was empowered to punish those who should presume to array themselves in contempt of his prohibition; and because he understood that the Scots were arming in order to repel those invaders whom Edward had indirectly sent against them, he empowered Henry de Percy to arm against them.

237 Randolph the regent dies. An. 1332.

On

(G) As this is an important period of history, we shall transcribe the opinion of Lord Hailes concerning the causes of this strange delay of executing an article seemingly of little importance where a nation was concerned. "By the treaty of Northampton (says he), all the claims of the English barons to inheritances in Scotland were disregarded, excepting those of Henry de Percy, Thomas Lord Wake of Ledel, and Henry de Beaumont. Percy procured satisfaction: but the others did not.

"Henry de Beaumont, in the reign of Edward II. had associated himself with the nobility against the D'Espensers, and on that account had suffered imprisonment and exile. He aided Queen Isabella in the invasion which proved the cause of the deposition, captivity, and death of her husband. Although, under the administration of Mortimer, he had obtained a share in the partition of the spoils of the D'Espensers, he persisted in opposing the measures of the new favourite; and although his own interests were secured by the treaty of Northampton, he boldly exclaimed against the injustice done to the other barons by that treaty. He joined the princes of the blood-royal in their attempt to rescue the young king from the hands of Isabella and her minion, and place him in their own; and, on the failure of that ill-advised conspiracy, he again took refuge in foreign parts. It appears that Lord Wake, having followed the political opinions of Henry de Beaumont, was involved in like calamities and disgrace. While the queen dowager and Mortimer retained their influence, the claims of those two barons were altogether overlooked: But within 48 hours after the execution of Mortimer, a peremptory demand was made by Edward III. to have their inheritance restored.

"The demand was unexpected and alarming. Made at the very moment of the fall of Isabella and Mortimer, and in behalf of men who had loudly protested against the treaty of Northampton, it indicated a total and perilous change in the system of the English.

"Randolph, of late years, had beheld extraordinary vicissitudes in England: The D'Espensers alternately persecuted and triumphant, and at length abased in the dust: The fugitive Mortimer elevated to supreme authority, victorious over the princes of the blood-royal, and then dragged to a gibbet. Hence it was natural for Randolph to wish, and even to look, for some new revolution, which might prove more favourable to the Scottish interests.

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238 Baliol lands at Kinghorn, and defeats the Scots.

On the 31st of July, Edward Baliol and his associates landed in the neighbourhood of Kinghorn, on the Forth; routed the earl of Fife, who opposed them; and marched next day to Dunfermline. Having then ordered his fleet to wait for him at the mouth of the Tay, he proceeded northwards, and encamped on the Miller's acre at Forteviot, with the river Earn in front. Nothing, however, could be more dangerous than his present situation, and his destruction seemed to be inevitable. The earl of Marr was encamped with a numerous army on the opposite bank of the river Earn, in the neighbourhood of Duplin; and another, nearly as numerous, had advanced from the south, through the Lothians and Stirlingshire, and fixed its quarters at Auchterarder, eight miles to the west of Forteviot. Historians differ as to the number of the two armies. Fordun says, that the regent had with him 30,000 men, and the earl of March as many; and that Baliol had between 500 and 600 men at arms; that is, horsemen completely armed. Hemingford reckons each of the Scots armies at 40,000, and Baliol's at 500 armed men. Knyghton says, that Baliol, when he landed in Fife, had 300 armed men, and 3000 more of different sorts; but that he had in all only 2500 men in his camp at Earn. In this desperate situation, the English general formed a design of attacking the Scots in their camp. They were directed to a ford by Andrew Murray of Tullibardine. The Scots kept no watch, but abandoned themselves to intemperance and riotous mirth; while their enemies, led by Alexander Moubray, crossed the river at midnight. They ascended a rising ground, came unperceived on the right flank of the Scottish army, and made a dreadful slaughter. At the first attack, young Randolph hastened with 300 men at arms to oppose the enemy; and being seconded by Murdoch earl of Menteith, Alexander Fraser, and Robert Bruce natural son to the late king, he gave a check to the English, and maintained the combat on equal terms. But now the regent himself, along with the whole multitude, rushed forward to battle without the least order: so that while the hindmost pressed on, the foremost were thrown down, trodden upon, and suffocated. The slaughter lasted many hours, and the remains of this vast army were utterly dispersed. Many men of eminence were killed; among whom were Donald earl of Marr, author of the whole catastrophe; Thomas earl of Moray, Murdoch earl of Menteith, Robert earl of Carrick, Alexander Fraser, and Robert Bruce. The slaughter of the infantry and of the men at arms was very great; the most probable accounts make it 2000 men at arms, and upwards of 13,000 common soldiers. The loss of the English was inconsiderable.

239 Further success of Baliol.

The day after this victory, Baliol took possession of Perth; and, apprehending an attack from the earl of March, caused the ditch to be cleared, and the town to be fortified with pallisadoes. The first information which the earl received of this dreadful defeat was from a common soldier, who fled from the place mortally wounded. When this poor wretch came up, he had time to do no more than to show his wounds; after which he fell down, and expired. On his arrival at the field of battle, he found a dreadful confirmation of the intelligence given by the soldier; but instead of taking his measures with any prudence, he and his men hurried on to Perth, actuated only by a blind impulse to revenge. At first they designed to assault the place; but their hearts failing them, they next determined to reduce it by famine. This, however, could not be done unless the Scots were masters at sea. John Crabb, the Flemish engineer, (who had distinguished himself by destroying the famous engine called the *sow* at the siege of Berwick), had continued for many years to annoy the English on the eastern coasts. After the blockade of Perth was formed, he came with ten vessels to the mouth of the Tay, where the English fleet was, and took the ship belonging to Henry de Beaumont; but soon after, all his ten vessels were burnt by the English in a general engagement. After this the blockade of Perth was raised, the earl of March disbanded his army, and Edward Baliol was crowned king of Scotland at Scone, on the 24th of September 1332.

240 He is crowned king of Scotland.

The new monarch was no sooner put in possession of the kingdom, than he left Perth in the hands of the earl of Fife, while he himself repaired to the southern parts of the kingdom. But the party of King David was far from being extinguished. Baliol was scarcely gone, when the town of Perth was surprised, and its fortifications

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Meanwhile, with great reason and good policy, he delayed the restitution of the inheritances claimed under the treaty of Northampton, in behalf of the avowed opposers of that treaty.

"Besides, it was necessary for Randolph to be assured that the English, while they urged the performance of one article of that treaty, did, on their part, sincerely purpose to perform its more important articles, by continuing to acknowledge the succession in the house of Bruce, and the independency of the Scottish nation.

"Of this, however, there was much reason to doubt. For the English king had taken Baliol under his protection, and had granted him a passport to come into England, with permission to reside there during a whole year, (10th October 1330). These things had no friendly or pacific appearance.

"Be this as it will, the event too fatally justified the apprehensions of Randolph; for, while Edward III. was demanding restitution of the estates reserved by the treaty of Northampton, his subjects were arming in violation of that treaty.

"It is remarkable, that, on the 24th March 1331–2, Edward appears to have known of the hostile association of the disinherited barons. His words are, 'Quia ex relatu accepimus plurimorum, quod diversi hominum de regno nostro, et alii (meaning Baliol and his attendants), pacem inter nos, et Robertum de Bruce, nuper Regem Scotorum, initam et confirmatam infringere machinantes, diversas congregationes hominum ad hunc indies faciunt, et, *per varias regni nostri, dictam terram* Scotiæ, *ad eam vado passagii transeundum, operam intendunt*;' *Fœdera*, tom. iv. p. 511. And yet, on the 22d April following, he demanded restitution of the inheritance of Lord Wake, one of the barons in arms;" *Fœdera*, tom. iv. p. 518.

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fortifications razed, by James Fraser, Simon Fraser, and Robert Keith. The earl of Fife was made prisoner, with his family and vassals. Andrew Murray of Tullibardine, who had directed the English to a ford on the river Earn, was put to death as a traitor. Such of the Scots as still adhered to the interest of their infant prince, chose Sir Andrew Murray of Bothwell regent. He was a brave and active man, but had not as yet sufficient force to attempt any thing considerable.

241 His shameful behaviour.

In the mean time, Baliol behaved in a most scandalous manner. At Roxburgh, he made a solemn surrender of the liberties of Scotland; acknowledged Edward for his liege-lord; and, as if this had not been sufficient, he became bound to put him in possession of the town, castle, and territory of Berwick, and of other lands on the marches, extending in all to the yearly value of 2000*l.* "on account," as the instrument bears, "of the great honour and emoluments which we have procured through the *sufferance* of our lord the king, and by the powerful and acceptable aid which we have received from his good subjects." He also proffered to marry the princess Johanna, whom he considered as only betrothed to David Bruce, and to add 500*l.* to her jointure; and this under the penalty of 10,000*l.* to be appropriated as a portion to the young lady, or otherwise disposed of for her behoof. He further engaged to provide for the maintenance of David Bruce as the king of England should advise; and, lastly, he became bound to serve Edward in all his wars, excepting in England, Wales, and Ireland, for the space of a year together, with 200 men at arms, and all at his own charges; and he bound his successors to perform the like service with 100 men at arms. But afterwards Edward having engaged to maintain him on the throne of Scotland, Baliol bound himself to serve him in all his wars whatever.

Though the greatest part of the nation submitted to this shameful treaty, it roused the indignation of those who wished well to the liberties of their country. John, the second son of Randolph, now earl of Moray by the death of his brother; Archibald, the youngest brother of the renowned Douglas; together with Simon Fraser, assembled a body of horsemen at Moffat in Annandale; and, suddenly traversing the country, assaulted Baliol unexpectedly at Annan. His brother Henry made a gallant resistance for some time; but was at last overpowered by numbers and killed, together with several other persons of distinction. Baliol himself escaped almost naked, with scarcely a single attendant, and fled to England. After his departure, the Scots began to make depredations on the English frontiers. Edward issued a proclamation, in which he solemnly averred, that the Scots, by their hostile depredations, had violated the peace of Northampton. Baliol, in the mean time, being joined by some English barons, returned to Scotland; took and burnt a castle where Robert de Colville commanded; and, establishing his quarters in the neighbourhood of Roxburgh, began to make preparations for besieging Berwick. Just after his arrival, Archibald Douglas, with 3000 men, invaded England by the western marches, plundered the country, and carried off much booty; in revenge for which, Sir Anthony de Lucy made an inroad into Scotland, defeated and took prisoner Sir William Douglas, celebrated in history by the appellation of *the knight of Liddesdale*, whom Edward caused to be put in irons. About the same time, Sir Andrew Murray the regent attacked Baliol, with a view to discomfit him before the reinforcements which he expected out of England could arrive. A sharp conflict ensued at Roxburgh, in which the regent, attempting to rescue a soldier, was taken prisoner: and thus Scotland was at once deprived of its two ablest commanders.

242 Baliol surprised and driven out of Scotland.

243 The Scots regent defeated and taken prisoner.

Archibald Douglas was now declared regent; and Edward prepared to invade Scotland, in order to take vengeance on its inhabitants, as he said, for the wrongs they had done, and to seek such redress as might seem good to himself. He ordered possession to be taken of the isle of Man in his own name; and soon after made it over to Sir William de Montague, who had some claim of inheritance in it. The chief design of Edward in this expedition, however, was to obtain possession of the town of Berwick, which had been already ceded to him by Baliol. This appeared to the Scots a place of no less importance than it did to Edward; and therefore they took all the precautions in their power to prevent the loss of it. The earl of March was appointed to command the castle, and Sir William Keith the town. The Scots made an obstinate defence; yet it was evident that they must soon have yielded if they had not been relieved. At length the regent, with a numerous army, appeared in the neighbourhood. He endeavoured to convey succours into the town, or to provoke the enemy to quit the advantage of the ground, and engage in battle. But all his efforts were in vain; the English obstructed every passage, and stood on the defensive.

244 Berwick besieged by the English.

245 The Scots invade Northumberland in vain.

The regent then entered Northumberland, wasted the country, and even assaulted Bamborough-castle, where Philippa the young queen of England had her residence. He fondly imagined that Edward III. would have abandoned the siege of Berwick, after the example of his father, in circumstances not dissimilar. Edward, however, persevered in his enterprise.

During a general assault, the town was set on fire, and in a great measure consumed. The inhabitants having experienced the evils of a siege, and dreading the greater evils of a storm, implored the earl of March and Sir William Keith to seek terms of capitulation. A truce was obtained; and it was agreed, that the town and castle should be delivered up on terms fair and honourable, unless succours arrived before the hour of vespers on the 19th July.

246 The Scots resolve to come to an engagement.

By the treaty, Sir William Keith was permitted to have an interview with the regent. He found him with his army in Northumberland; urged the necessity of his return; and showed him, that Berwick, if not instantly relieved, was lost for ever. Persuaded by his importunities, the regent resolved to combat the English, and either to save Berwick or lose the kingdom.

On the afternoon of the 19th of July, the regent prepared for battle. He divided his army into four bodies. The first was led by John earl of Moray, the son of Randolph; but as he was young and inexperienced in war, James and Simon Fraser, soldiers of approved reputation, were joined with him in the command. The second body was led by the steward of Scotland, a youth of 16, under the inspection of his uncle Sir James Stewart of Rosyth. The third body was led by

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by the regent himself, having with him the earl of Carrick and other barons of eminence. The fourth body, or reserve, appears to have been led by Hugh earl of Ross.

The numbers of the Scottish army on that day are variously reported by historians. The continuator of Hemingford, an author of that age, and Knyghton, who lived in the succeeding age, ascertain their numbers with more precision than is generally required in historical facts.

The continuator of Hemingford minutely records the numbers and arrangement of the Scottish army. He says, that, besides earls and other lords or great barons, there were 55 knights, 1100 men at arms, and 13,500 of the commons lightly armed, amounting in all to 14,655.

With him Knyghton appears to concur, when his narrative is cleared from the errors of ignorant or careless transcribers.

It is probable, however, that the servants who tended the horses of persons of distinction and of the men at arms, and the useless followers of the camp, were more numerous than the actual combatants.

The English were advantageously posted on a rising ground at Halidon, with a marshy hollow in their front. Of their particular disposition we are not informed, farther than that Baliol had the command of one of the wings.

It had been provided by the treaty of capitulation, "That Berwick should be considered as relieved, in case 200 men at arms forced their passage into the town." This the Scottish men at arms attempted; but Edward, aware of their purpose, opposed them in person, and repulsed them with great slaughter. The Scottish army rushed on to a general attack; but they had to descend into the marshy hollow before mounting the eminences of Halidon. After having struggled with the difficulties of the ground, and after having been incessantly galled by the English archers, they reached the enemy. Although fatigued and disordered in their ranks, they fought as it became men who had conquered under the banners of Robert Bruce. The English, with equal valour, had great advantages of situation, and were better disciplined than their antagonists. The earl of Ross led the reserve to attack in flank that wing where Baliol commanded; but he was repulsed and slain. There fell with him Kenneth earl of Sutherland, and Murdoch earl of Menteith.

247 Battle of Halidon.

248 The Scots defeated, and the regent killed.

In other parts of the field, the events were equally disastrous. The regent received a mortal wound, and the Scots everywhere gave way. In the field, and during a pursuit for many miles, the number of slain and prisoners was so great, that few of the Scottish army escaped.

Besides the earls of Ross, Sutherland, and Menteith, there were among the slain Malcolm earl of Lenox, an aged baron; he had been one of the foremost to repair to the standard of Robert Bruce, and his last exertions were for his country: Alexander Bruce earl of Carrick, who atoned for his short defection from the family of his benefactor: John Campbell earl of Athol, nephew of the late king; James Fraser, and Simon Fraser; John de Graham, and Alexander de Lindesay, Alan Stewart, and many other persons of eminent rank.

The Steward had two uncles, John and James. John was killed, and James mortally wounded and made prisoner.

The regent, mortally wounded, and abandoned on the field of battle, lived only to see his army discomfited and himself a prisoner.

This victory was obtained with very inconsiderable loss. It is related by the English historians, that on the side of their countrymen, there were killed one knight, one esquire, and twelve foot soldiers. Nor will this appear incredible, when we remember, that the English ranks remained unbroken, and that their archers, at a secure distance, incessantly annoyed the Scottish infantry.

249 Berwick surrenders, and almost all Scotland submits.

According to capitulation the town and castle of Berwick surrendered, and the English king took 12 hostages, for securing the fidelity of the citizens.

Thus was the whole of Scotland reduced under the subjection of Baliol, excepting a few fortresses; so that it became necessary to provide for the safety of the young king and queen. Accordingly, they were conveyed to France, where they were honourably entertained. Meanwhile, Baliol employed himself in making new concessions to his liege-lord Edward; and in 1334 the work of submission was completed by a solemn instrument drawn up by Baliol, in which he surrendered great part of the Scottish dominions, to be for ever annexed to the crown of England. In this instrument Baliol said, that "he had formerly become bound to make a grant to Edward of lands on the marches, to the amount of *two thousand-pound lands;* that the Scottish parliament had ratified his obligation; and that he had accordingly surrendered Berwick and its territory; and now, for completely discharging his obligation, he made an absolute surrender to the English crown of the forests of Jedburgh, Selkirk, and Ettrick; of the counties of Roxburgh, Peebles, and Dumfries; together with the county of Edinburgh, and the constabularies of Linlithgow and Haddington." This extraordinary surrender was made with so much precipitation, that Baliol forgot to except his own private estate out of it. This, however, was generously restored to him by Edward; who proclaimed, that, "having already received satisfaction in full, he had too much reverence for God, justice, and good faith to man, to allow the cession to be prejudicial to the private rights of the king of Scots." At the same time, Baliol presented himself before his liege-lord; did homage, and swore fealty, "for the whole kingdom of Scotland and the isles adjacent."

250 Mean submissions of Baliol. An. 1334.

251 A quarrel among the English disinherited lords.

A quarrel now arose among the disinherited lords, to whom this revolution had been owing, which produced the worst consequences to the interest of Baliol. The brother of Alexander de Moubray died, leaving daughters, but no issue-male. Moubray having claimed a preference to the daughters of his brother, Baliol countenanced his suit, and, as it appears, put him in possession of the inheritance. Henry de Beaumont earl of Buchan, and David de Strathbolgie or Hastings, earl of Athol, espoused the cause of the heirs-general; but perceiving that their solicitations were not heard, they left the court in disgust, and retired to their castles about the end of August 1334. Baliol soon perceived his error in offending these two powerful lords; and in order to regain their favour, dismissed Moubray, and

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and conferred on David de Strathbolgie the whole estates of the young Steward of Scotland. Thus he alienated the affections of Moubray, and added to the power of the earl of Athol, who was by far too powerful before.

252 Baliol's party every where defeated.

About this time Sir Andrew Murray of Bothwell, having regained his freedom, began to assemble the friends of liberty, and was immediately joined by Moubray. In a moment every thing was in confusion. Geffrey de Moubray, governor of Roxburgh, revolted; Henry de Beaumont was besieged in his castle of Dundarg by Murray and Moubray, and forced to surrender, but obtained liberty to depart into England. Richard Talbot, endeavouring to pass into England with a body of troops, was defeated and taken prisoner by Sir William Keith of Galston. The Steward of Scotland, who had lain concealed in the isle of Bute ever since the battle of Halidon, now passed over to the castle of Dunbarton, which was one of the few forts remaining to King David. With the assistance of Dougal Campbell of Lochow, he made himself master of the castle of Dunoon in Cowal. His tenants of the isle of Bute attacked and slew Alan de Lile the governor, and presented his head to their master. John the son of Gilbert, governor of the castle of Bute, was made prisoner in the action. He ordered the garrison to surrender, and attached himself to the Scottish interest. Encouraged by these successes, the Steward entered his ancient inheritance of Renfrew, and compelled the inhabitants to acknowledge the sovereignty of David. Godfrey de Ross, the governor of Ayrshire, submitted to the Steward. The earl of Moray returned from France, whither he had fled after the battle of Halidon, and was acknowledged regent along with the Steward. The earl, having raised a body of troops, marched against the earl of Athol, compelled him to retire into Lochaber, and at last to surrender; after which he embraced the party of the conquerors. Baliol was now obliged to retire again into England, in order to solicit assistance from Edward; and this was readily granted. Edward himself took the field at a very unfavourable season for military enterprises. His army was divided into two parts. With the one Edward wasted Lothian, while Baliol did the like in Annandale with the other; and in the mean time, Patrick earl of March, notwithstanding the unfavourable posture of affairs, renounced the allegiance he had sworn to England. His motive for this was, that though the kings of England had maintained him in an independency dangerous to Scotland, he was assured that they would never permit him to become formidable in a country which they themselves possessed.

253 He retires into England, and obtains the assistance of Edward.

254 Lochleven castle unsuccessfully besieged by the English.

An. 1335.

The year 1335 is remarkable for the siege of Lochleven castle by the English, under John de Strivelin. This fort is built on a small island, and very difficult of access. The English commander erected a fort in the cemetery of Kinross; and at the lower end of the lake, from whence runs the stream called *the Water of Leven*, he raised a strong and lofty bulwark, by means of which he hoped to lay the island under water, and oblige the garrison to surrender. But four of the Scots soldiers, having found means to approach the bulwark undiscovered, pierced it so dexterously, that the waters, rushing out with a prodigious force, overflowed part of the English camp; and the garrison, sallying out under the confusion occasioned by this unexpected inundation, stormed and plundered the fort at Kinross. At this time the English commander, with many of his soldiers, happened to be absent at Dunfermline, celebrating the festival of St Margaret. On his return, he swore that he would never desist till he had taken the place, and put the garrison to the sword; but his utmost efforts were at last baffled, and he was obliged, notwithstanding his oath, to desist.

In the mean time, the regents assembled a parliament at Dairsy, near Cupar in Fife; but no plan of defence could be fixed on, by reason of the animosities and factions which prevailed among the barons. Through the mediation of the French, some terms of peace were proposed; but being rejected by the English, Edward again invaded Scotland, cruelly ravaging the country with one army, while Baliol and the earl of Warenne did the same with another. Soon after the invasion, Count Guy of Namur landed at Berwick with a considerable number of men at arms in the service of the English. He advanced to the neighbourhood of Edinburgh; but was defeated and taken prisoner by the earls of March and Moray, and Sir Alexander Ramsay. In this engagement, one Richard Shaw, a Scottish esquire, was singled out by a combatant in the army of Count Guy, and both pierced each other with their spears; the stranger being stripped, was discovered to be a woman. The earl of Moray treated Guy with the greatest respect, not only allowing him and the remainder of his troops to depart from Scotland without molestation, but even attending him to the borders, accompanied by William Douglas and his brother James. On his return, William de Pressen, warden of the castle and forest of Jedburgh, attacked and defeated his party; James Douglas was killed, the earl himself taken prisoner, and carried into England.

255 Count Guy of Namur defeated and taken prisoner.

256 The Scots regent taken prisoner, in consequence of which a shameful treaty is concluded with England.

Thus was the Scottish nation once more reduced to the brink of ruin. Alexander de Moubray, Geffrey de Moubray, and some others, pretending powers from "the earl of Athol and Robert the Steward of Scotland," concluded a treaty with Edward at Perth; the substance of which was, that all the Scots should receive pardon, and have their fees, lands and offices restored, excepting those who by *common assent* in parliament should be excluded. The liberties of the church and the ancient laws and usages of Scotland were to remain in full force. All offices were to be filled with Scotsmen, excepting that the king should appoint whom he pleased within his regalities.

257 The earl of Athol defeated and killed.

The earl of Athol now began to persecute with the utmost fury those who wished well to the cause of Scotland. With 3000 men he besieged the castle of Kildrummy, which had hitherto been the great refuge of King David's party. Sir Andrew Murray of Bothwell resolved at all events to attempt the rescue of his wife and family, who were shut up in his castle. With 1100 men he surprised Athol in the forest of Kilblain. The earl's men, seized with a panic, fled and dispersed themselves; on which their commander, refusing to accept of quarter, was killed. Sir Andrew Murray then assembled a parliament at Dunfermline, where he was immediately appointed regent.

258 Edward again invades Scotland.

In 1336 the king of England perceiving that the Scots were taken under the patronage of France, resolved to invade their country, and crush them at once before

An. 1336.

Scotland.

before they could have any assistance from their new allies. In this expedition he penetrated as far as Inverness; but the Scots, commanded by Sir Andrew Murray, avoided coming to a general action; so that Edward could not effect any thing of consequence. The inhabitants of Aberdeen attacked one Thomas Rosheme, who had landed at Dunottar. They were defeated; but Rosheme fell in the action. Edward chastised the vanquished severely for their temerity, and laid the town in ashes. He then began to repair the castles whose fortifications had been demolished by King Robert. He put in a state of defence the castles of Dunottar, Kinclevin, Lawrieston, Stirling, Bothwell, Edinburgh, and Roxburgh; greatly augmented the fortifications of Perth, and left a considerable body of troops in the place. The Scots began to reduce these castles as soon as Edward was departed; and in 1337, under Sir Andrew Murray, invaded Cumberland. No great exploits, however, were now performed on either side. Edward being employed in preparations for invading France, had little leisure to attend to the affairs of Scotland; and the Scots, divided among themselves, and destitute of those leaders under whom they had acquired so much glory, could not now annoy their enemies as formerly. The most remarkable transaction was the siege of the castle of Dunbar, belonging to the earl of March. The English commander was the earl of Salisbury. The earl of March was absent; but his wife, the daughter of Randolph, from her complexion commonly called *Black Agnes*, undertook to defend it in her husband's absence. The English again employed that huge machine called a *sow*, formerly mentioned in our account of the siege of Berwick: it met with the same fate now as at that time; an huge stone, let fall upon it from the top of the walls, crushed it to pieces. The English, baffled in every attack, turned the siege into a blockade; but Sir Alexander Ramsay having found means to enter it with 40 resolute men, the garrison made a sally, and cut in pieces the advanced guard of the enemy. The English, disheartened by so many misfortunes, abandoned the enterprise.

259 Dunbar castle unsuccessfully besieged by the English. An. 1337.

260 Exploits of Robert the Steward. An. 1339.

In 1338, Sir Andrew Murray the regent died, and was succeeded in his office by Robert the Steward of Scotland. In 1339 he reduced the town of Perth and the castle of Stirling: and gained over to the Scottish interest William Bullock, governor of the castle of Coupar: after which, having expelled the enemy from every post to the northward of the Forth, he employed himself in settling the affairs of the nation as well as he could.

261 Edinburgh castle surprised by Sir William Bullock, An. 1341.

In 1341, the castle of Edinburgh was surprised by a device of Sir William Bullock. According to his appointment, one Walter Currie of Dundee privately received into his ship the knight of Liddesdale, with William Fraser, Joachim of Kinbuck, and 200 resolute men. Currie cast anchor in Leith road, pretending to be an English shipmaster, who had a cargo of wine and provisions, with which he proposed to furnish the commander of the castle. His barrels and hampers were brought to the castle-gate, and suddenly thrown down in such a manner as to obstruct the shutting of it. Currie and his men then slew the sentinels: and the knight of Liddesdale, with a party who lurked in the neighbourhood, rushed in, overpowered the garrison, and made themselves masters of the place.—On the 4th of March this year, the king and queen arrived from France, and landed at Inverbervie in Kincardineshire.

262 King David arrives in Scotland.

Scotland.

An. 1342.

In 1342, Sir Alexander Ramsay took the strong fortress of Roxburgh; for which important service the king bestowed on him the charge of sheriff of Teviotdale, at that time held by William Douglas knight of Liddesdale. The king's liberality proved fatal to Ramsay; for from that time Douglas became his implacable and inveterate enemy; and having, after a pretended reconciliation, unexpectedly surprised him with three of his friends, he put them instantly to death, carrying off Ramsay himself to his castle of the Hermitage, where he caused him to be starved to death in a most barbarous manner. The unhappy man was confined in a room, over which was a heap of wheat; a few grains of which were let fall every day through a hole, not as many as would support life, but as would protract it for a time, and make him longer sensible of the agonies of hunger: and in this miserable situation he survived 17 days. About the same time Sir William Bullock was put to death by Douglas in a similar manner: nor was King David at that time in a capacity to punish such atrocious cruelties committed by so powerful a subject.

263 Miserable end of Sir Alexander Ramsay and Sir William Bullock.

In the mean time, David having raised a powerful army, prepared to take a severe revenge of the English, from whom he had suffered so much. Edward was at that time in France, but commanded Baliol to raise all the militia beyond the Trent: which order, however, produced but little effect; so much was this mean-spirited prince despised by the English. David invaded Northumberland without opposition, and ravaged the country; but was obliged to raise the siege of Newcastle, which was commanded by Sir John Nevil, an excellent officer. David, exasperated at this repulse, entered the bishopric of Durham, which he ravaged in the most cruel manner. However, on the approach of Edward with a powerful army, the Scots thought proper to retire; and a two years truce was agreed on.

264 David invades England, and behaves with the utmost cruelty.

This pacification was but short-lived. In 1345 the Scots again prepared to invade England, while Edward took all necessary measures for opposing them; however, this year the Scots were successful, ravaging Westmoreland, and burning several towns. The year ended with a new truce between the two nations; and hostilities were not renewed till 1346, when David entered England with an army of 50,000 men. His first exploit was the taking of the fortress of Liddel, and massacring all whom he found in it. The commander, Sir Walter Selby, capitulated with a Scots knight for his life; but the bargain being disapproved of by David, he ordered two of Selby's sons to be strangled in his presence, and then the father's head to be cut off. From thence the Scots marched to Lancroft, which they plundered; then passing into Northumberland, they pillaged the priory of Hexham, but spared the town, that it might serve as a magazine. Three other towns, Corbridge, Durham, and Darlington, were spared for the same reason. In his march to Durham, it is said that he would have made the country a desert, had not some of the monks paid him a contribution of a thousand pounds to spare their estates: however, according to Knyghton, every Englishman who fell into David's hands was put to death, unless he could redeem his life by paying threepence.

265 Other invasions. An. 1345.

266 Monstrous cruelty of David.

To put a stop to the cruelties of this barbarous invad-

er,

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er, the queen of England, in her husband's absence, assembled a powerful army, which was divided into four bodies; the first commanded by Lord Henry Percy; the second by the archbishop of York; the third by the bishop of Lincoln, the lord Moubray, and Sir Thomas Rokeby; and the fourth and principal division was headed by Edward Baliol.—The king of Scotland headed a chosen battalion, composed of the flower of his nobility, and the auxiliaries with which he had been supplied by France. The high steward of Scotland headed the second line; and the third was commanded by the earls of Moray and Douglas. While the English were approaching, Lord Douglas and Sir David Graham skirmished with them, but were defeated with the loss of 500 of their men; which seemed an omen of the disaster that was about to ensue. The general engagement began between the archers on both sides; but the English being much superior in the use of the bow, the steward of Scotland advanced to the relief of his countrymen. The English archers, unable to bear his attack, fell back upon Lord Henry Percy's division, which was thus put in confusion, and would have been totally defeated, had not Baliol advanced to their relief with a body of 4000 horse. The steward was then obliged to retire; by which means the flank of that division commanded by David, and which was then engaged with another line of the English, was left exposed to an attack. Baliol perceived the advantage; and, without pursuing the steward, attacked the king's division, which was speedily cut in pieces or dispersed. David was left with about 80 noblemen and gentlemen, but still maintained the fight with obstinacy; nor would he yield even when wounded in the head with an arrow, expecting every moment to be relieved by the steward and that line of his army which was still entire under the lords Moray and Douglas. At last finding himself totally overpowered, he attempted to retreat, but was overtaken by a party under one John Copeland. This captain, endeavouring to seize the king, had two of his teeth struck out by a blow of his gauntlet; but at last, finding it in vain to resist, the king was obliged to give up his sword and surrender himself a prisoner.—After he was taken, Baliol attacked and totally routed that division of the Scottish army which had hitherto remained under the lords Moray and Douglas. In this battle the Scots lost a great number of their nobility, and 15,000 common soldiers. Many persons of the first distinction were also taken with the king; and had it not been that the escape of the Scots was favoured by the avarice of the English soldiers, who neglected the pursuit in order to plunder, scarcely a single soldier would have returned.

267 The battle of Durham, An. 1346.

268 The Scots defeated, and their king taken prisoner.

269 Account of King David after the battle.

King David, after this unfortunate battle, was carried to the castle of Bamborough, where he was kept with so much privacy, that for some time it was not known where he was, or that he had been taken prisoner. As soon as the truth was known, the queen of England demanded the royal prisoner from Copeland; but the latter positively refused to part with him even to the queen, unless she could produce an order to that purpose under Edward's hand and seal. This resolute behaviour was resented by the queen, and a complaint made to the king; in consequence of which Copeland was summoned to appear before Edward, after having resigned David to the custody of Lord Nevil. The English monarch, at that time in France, approved of all that he had done, rewarded him with 500*l.* a year, and sent him back to England with the honour of knighthood. David was then escorted by Copeland, attended, it is said, by 20,000 men, from the castle of Ogle in Northumberland, till the lord Nevil, by indenture, delivered him into the hands of Sir Thomas Rokeby sheriff of Yorkshire. In the same pompous manner he was conducted all the way to London, which he entered on a black courser. He was received in the capital with the greatest solemnity by the lord mayor and other magistrates, the city-companies under arms lining all the streets through which he passed, the houses loaded with spectators, who expressed a generous concern for his captivity. Being arrived at the Tower, he was delivered, by indenture likewise, to the custody of the constable, the lord John Darcy, on the 2d of January 1347.

270 Baliol makes another attempt on the crown of Scotland. An. 1347.

Baliol now, encouraged by the misfortune of his rival, made an effort once more to establish himself on the throne of Scotland; and before the end of the year reduced the castles of Hermitage and Roxburgh, the forest of Ettrick, the Merse, with the districts of Annandale, Teviotdale, and Tweeddale. The Scots continued faithful to the cause of their king, notwithstanding his misfortunes, and chose the steward for the guardian of the kingdom. He behaved with a prudence equal to the high station which he filled: but the progress of Baliol was so rapid, that it is scarcely probable he could have maintained his ground, had not Edward again consented to a truce; which, however, seems to have been ill observed on the part of the Scots. In fact, though both Scots and English historians are silent as to particulars, we find, that about the end of the year 1348, all Scotland was recovered out of the hands of the English; excepting Berwick, Roxburgh, Hermitage, and Lanric, which was part of Baliol's hereditary estate, and defended by him with an army. The Scots historians inform us, that the English, in revenge for the damages done to their country by the breach of the peace, proclaimed a tournament and other military exercises at Berwick, to which they invited the Scots; but in their way thither the latter fell into an ambuscade, and were all cut in pieces.

271 The Scots recover the greatest part of their country. An. 1348.

272 Scotland infested with a dreadful plague. An. 1349 to 1352.

The years 1349 and 1350 were remarkable only for a dreadful plague which invaded Scotland, after having ravaged the continent of Europe. According to Fordun, one-third of the people of Scotland perished at this time. The patient's flesh swelled exceedingly, and he died in two days illness; but the mortality affected chiefly the middling and lower ranks of people. The same dreadful calamity continued throughout the years 1351 and 1352; occasioning a cessation of arms not only in Scotland, but throughout all Europe.

All this time King David remained a prisoner in England; for though several treaties had been proposed, they had hitherto come to nothing, because the English monarch insisted upon being indemnified for the ravages which the Scots had committed in his territories. At last it was agreed, that the king of Scotland should be immediately set at liberty, on paying 90,000 merks for his ransom, by equal proportions, within the space of nine years: That 10,000 merks, being the first proportion, should be paid at the feast of Candlemas next to come, the second at Candlemas 1357, and so on till complete

273 Terms proposed for release of the Scottish monarch.

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plete payment should be made of the whole: That, during the said space of nine years, there should be a truce between the two kingdoms: That 20 Scots gentlemen, of the best families in the kingdom, should remain in England as hostages and sureties for the said sum; and that, if any part thereof was not paid at the precise time appointed, then David should remain a prisoner in England till it was paid; or, if he was detained by any just cause, that the lord high steward, the lord Douglas, John of the Isles, and others of the highest rank, should come and supply his place.

274 Rejected by the nobility, and war recommenced. An. 1355.

These terms were rejected by the Scots nobility; and in 1355, war was recommenced with England, at the instigation of France, who sent 40,000 crowns to Scotland as a supply for defraying the expenses.

With this sum the guardian, having raised an army, once more took the field; but not before the English had destroyed the Lothians and Duglasdale. A battle was fought on Nisbit-moor: in which the English being drawn into an ambuscade, were totally defeated.

275 Berwick taken by the Scots.

The next attempt of the Scots was against the town of Berwick, which they designed to surprise by an escalade. They met, however, with such a vigorous resistance, that many persons of distinction were killed. The attack proved successful; but the acquisition was of no great importance, as the castle still held out. Edward, in the mean time, hearing of the loss of the town, hurried back from France to London. Here he staid but three days, and marched northward to raise the siege. He reached Durham on the 23d of December 1355, where he appointed all his military tenants to meet him on the 1st of January 1356. On the 14th of the same month he arrived before Berwick, which was instantly retaken; but the Scots were allowed to depart for their own country. The reduction of this place produced an extraordinary effect: for Baliol now perceiving that Edward meant not to establish him on the throne of Scotland, but to retain in his own possession as many places of that country as he could, came at last to the resolution of giving up to the king of England the whole of Scotland. This indeed was no more than a form, because at that time he was not possessed of the kingdom. However, the ceremony was performed at Roxburgh; and Baliol presented his crown and some earth and stones by way of investiture. Baliol in return was to have a revenue of 2000 pounds a year; and as Edward was at the head of an excellent army, he had little doubt of being able to force the Scots to submit.

276 Retaken by Edward. An. 1356.

277 Baliol resigns the kingdom of Scotland to Edward.

The affairs of Scotland were now in a very critical situation; and it was necessary to gain time. For this reason Edward was amused with a negociation; and to this he the more willingly listened, as he was at that time waiting for his fleet, from which he had great expectations. A little time, however, discovered the deceit. The Scots plainly told Edward, that they would die rather than submit to his demands; and he, in return, threatened a most dreadful revenge. His fleet in the mean time arrived in the frith of Forth; the mariners destroyed and pillaged all that was within their reach, without sparing even the sacred edifices, carrying off the statues of the blessed virgin, loading the monks with chains, and committing every thing in those days called impiety and sacrilege. Edward had by this time marched as far as Haddington, but was obliged to receive provisions all the way from his fleet; for the Scots had desolated the country through which he passed. During his march his army was harassed, and his foragers cut off so that he was reduced to distress; and at last his fleet being totally destroyed by a storm, he was obliged to return to England without accomplishing any thing.

278 Whom makes a furious invasion.

279 But is obliged to return without accomplishing any thing.

In the mean time the prince of Wales, who had been left by his father to carry on the war in France, defeated and took prisoner John king of France at the battle of Poictiers. In this battle were 3000 Scots, who had gone over as auxiliaries to the French monarch, and who suffered extremely. However, the success of Edward, instead of rendering him haughty, seemed to have a contrary effect; and, by the mediation of Pope Innocent, a truce for two years was concluded with France, in which the Scots were comprehended. During this interval, the ransom of the king of Scots was settled at 100,000 merks to be paid in ten years; for which 20 hostages were to be given as formerly. In consequence of this treaty, David at last obtained his liberty in 1358; and Edward laid aside all hopes of ever subduing Scotland. As for Baliol, he was now sunk in oblivion; and it is not known what became of him, or when he died.

280 David obtains his liberty. An. 1358.

David, though now restored to liberty, found himself greatly embarrassed with the payment of such a large sum as had been stipulated for his ransom; the kingdom of Scotland being then in a most miserable and exhausted situation. After sending his queen, and going into England himself, he could obtain no greater favour than a respite of a few months for the payment of the second moiety; so that he was at last constrained to ask assistance from France. This could scarcely be expected in the distressed situation of that kingdom; however, it was at last agreed, that 50,000 merks should be paid to Scotland, in case the Scots would consent to renew the war the following year. Neither party, however, kept their word: and David, being still greatly distressed about the remainder of his ransom, at last entered into a very extraordinary negociation with Edward, by which he consented that the king of England should be his successor to the throne of Scotland. But this negociation was defeated through the invincible hatred which the Scots bore to an English governor. David then, being entirely unable to discharge the remainder of his ransom, was obliged to enter into a new treaty; by which the kingdom of Scotland became indebted to Edward the sum of 100,000 pounds sterling, to be paid by equal proportions within the space of 25 years, during which there should be a truce between the two nations.

281 Is embarrassed by the payment of his ransom.

282 Enters into a new treaty with Edward.

From this time we meet with little more of any moment in the reign of King David. After the death of his queen Johanna, the sister of Edward, he married a Scots woman, of mean birth, named Margaret Logie; but by neither of his wives had he any children. Queen Margaret he divorced, on what pretence is not known; but she left the kingdom, and complained personally to the pope, who treated her as David's lawful wife, and enjoined her husband to receive her as such, under the most severe penalties. What effect these threats had on the king is not known; but it is certain that Margaret never returned to Scotland; and, on the 22d of February 1371, David himself died, leaving the kingdom

283 He dies, and is succeeded by Robert Steward. An. 1371.

Scotland.

to his nephew Robert Stewart, the first of that family who sat on the throne of Scotland (H).

Some authors tell us, that at the accession of Robert II. his title was disputed by William earl of Douglas. If any such claim was preferred, an assembly of the states set it aside, and it was resolved that Robert should be crowned at Scone; and to take away for the future all disputes concerning the succession, a particular act was framed, by which the kingdom was secured to Robert and his heirs.

The new king being thus established on the throne, endeavoured to renew the war with the English, in order to recover from them the town of Berwick, and some other places on the borders. In this, however, he failed; and as 56,000 pounds of David's ransom still remained unpaid, Robert bound himself to discharge it at the rate of 4000 merks every midsummer. He then proposed an alliance with France: but the terms demanded by that kingdom being, that Scotland should be obliged to make war with England whenever France should require it, Robert could not by any means be induced to consent to such a requisition, which would have obliged him to break through the most solemn treaties, whenever the king of France should think proper to break with England. A new treaty, therefore, was entered into, by which it was provided, that neither Scotland nor France should be obliged to make war with England; and by another clause, that the dispensation or authority even of the pope himself should never free the kings or kingdoms of France and Scotland from the obligations they lay under to assist one another, as often as required, in opposition to the kingdom of England. In case of a competition for the crown of Scotland, the king of France and his heirs were to take care that no English influence was used; but that the matter being by the greatest and best part of the nation decided conformably to the laws and establishments of Scotland, he should with all his power defend and assist the person so established. Lastly, it was agreed that no Frenchman should ever henceforth serve for wages, or otherwise, against Scotland, nor any Scotsman against France.

284 Treaty with France.

285 War betwixt the Scots and English borderers.

This last article occasioned a recal of all the Scots from the English armies, which Edward looked upon to be a prelude to an invasion. He accordingly issued writs for assembling all the militia in the north of England. At this time there subsisted between the neighbouring people of both nations an invincible hatred, which extended not only through the lower ranks, but had pervaded the higher classes also. The inhabitants of the borders, indeed, paid very little regard to the orders of their respective sovereigns; so that daily hostilities were committed by them upon each other when there was peace between the sovereigns. The inhabitants of these countries had established with one another certain conventions, which have since been collected, and go by the name of the *Border-laws*. The families of Douglas and Percy, whose estates lay contiguous to one another, were at perpetual variance. It had been common for the borderers of both kingdoms, during a truce, to frequent each other's fairs; and a servant of the earl of March had been killed in a fray at that of Roxburgh, which was still in the hands of the English. Justice for this murder was demanded from Lord Percy; but he slighted the complaint. On this the earl of March, with his brother the earl of Moray, assembling their followers, entered the next fair that was held in Roxburgh, plundered and burnt the town, and killed all the English who fell into their hands. The English borderers were ordered to lay waste the lands of the earl of March; but, in their way thither, destroyed the estate of Sir John Gordon, a man of great property in the south of Scotland. Sir John in his turn invaded England, from whence he drove off a large booty in cattle, and a number of prisoners. In his retreat he was attacked by a body of fresh troops under Sir John Lisburn, at a place called *Caram*. An obstinate encounter followed. The Scots were five times repulsed; but at last they renewed the charge with such fury, that they made Lisburn, his brother, and several other persons of distinction, prisoners, together with all their surviving soldiers. On this Lord Percy with 7000 men encamped at Duns, in the south of Scotland; but was obliged to retire, probably for want of subsistence for his army. In the mean time, Musgrave the governor of Berwick, who had been ordered to join Percy with a detachment from the garrison, was on his march intercepted, defeated, and taken prisoner by Sir John Gordon; after which the border war became general on both sides. The issue of these disturbances is but little known: however, in 1377, we find them raging with more violence than ever. The fair of Roxburgh was once more the scene of action, and the town was again burnt by the Scots. Lord Percy, who was now earl of Northumberland, resolved to take signal vengeance. He ravaged the Scots borders, particularly the earl of March's estate, for three days, at the head of 10,000 men. Some time after this, the Scots insurgents became powerful enough to surprise Berwick; which, however, was quickly retaken by the English, who soon after invaded Scotland. In this expedition, however, they succeeded so ill, that Percy thought proper to desist from his expedition. The Scots in the mean time began hostilities by sea, under one Mercer, an experienced sailor; but he had the misfortune to be taken prisoner by the English, with all his fleet. In 1379, England was afflicted with a dreadful plague, of which the Scots took advantage to invade the country. The English historians tell us that they behaved with the utmost barbarity, killing and plundering the defenceless inhabitants without mercy.

286 Berwick taken and retaken.

This predatory war continued, generally to the disadvantage of the English, till the beginning of November 1380, when a truce was concluded, to continue for a year; which, however, related only to the borders. This truce, like the others, was but very indifferently observed; so that, in 1383, new negociations were set on foot; but, in 1384, the war was renewed with greater fury than ever. In the spring, the earls of March and Douglas took the castle of Lochmaben, and intercepted a rich convoy which the English were sending to Roxburgh; burnt to the ground the castle of Wark, and

An. 1380.

(H) For an account of the origin of the Stewart family, see note (E), p. 610.

and committed such devastations in the north of England, that several gentlemen offered to resign their estates to King Richard, because they were not able to defend them against the Scots. The duke of Lancaster entered Scotland at the head of an army; but the inhabitants had removed every thing valuable, so that he marched on to Edinburgh without accomplishing any thing of consequence. On his return, he was harassed by flying parties of Scots, who destroyed a considerable number of his men. This year also the French sent a body of auxiliaries into Scotland. The earls of Northumberland and Nottingham entered Scotland with an army of 10,000 horse and 6000 archers; but retired, after having committed some devastations in the southern counties. The Scots revenged themselves by laying waste all the northern part of England to the gates of Newcastle. Berwick was taken by the Scots, and soon after surrendered for the sum of 2000 merks. A truce was then, as usual, concluded; but in the mean time King Robert was meditating a most severe blow against the English.

287 Formidable invasion of England projected;

The duke of Burgundy having come to the possession of the estate of his father-in-law the earl of Flanders, claimed the sovereignty of the town of Ghent; but they refused to submit to him, and in this refusal were protected by King Richard II. of England. On this the duke of Burgundy proposed to the French court to invade England in concert with the Scots.—This being agreed to, a fleet was fitted out at Sluys; on board of which John de Vienne, the French admiral, embarked, carrying along with him 50,000 pounds in gold, which the duke of Burgundy advanced in order to be distributed in Scotland, where the admiral arrived safe with a considerable reinforcement, together with supplies of all kinds of military stores. Two thousand auxiliaries, of whom 500 were men-at-arms, arrived with this fleet; and 400 suits of complete armour were brought along with them, in order to be distributed among the bravest of the Scots.

288 But comes to nothing.

The Scots were for a short time elated with the great attention which had been paid them by the French king; but, in the mean time, the Flemings having revolted, the French abandoned the Scots to sustain the whole weight of the English resentment, that they themselves might employ their arms in Flanders. King Richard took the field with a more numerous army than had ever been mustered in England before. Hostilities were begun by the Scots, who, according to custom, invaded the northern parts of England, and carried off a considerable booty: however, in their retreat, they were in the utmost danger of being cut off by the duke of Lancaster, who had been sent with an army to intercept them. The English army proceeded northwards; but could accomplish nothing, on account of the country being desolated, till they came to Edinburgh, which they laid in ashes. Being, however, incessantly harassed by parties of the enemy, they were obliged to retreat.

Nothing remarkable happened till the year 1388, when, after a short truce, the war was renewed with fresh fury. Northumberland and Westmoreland were ravaged by the earls of Fife and Douglas, and Lord Nithsdale defeated a body of 3000 English: after which he formed the plan of invading Ireland, the inhabitants of which had of late been very active against the Scots. In 1388, Douglas obtained permission to raise a body of forces for this invasion; and having landed in safety, defeated the Irish, plundered the town of Carlingford, and loaded 15 ships with the booty. From thence the Scots sailed to the isle of Man, which in like manner was plundered and laid waste: after which they returned with their booty to Loch Rian in Scotland.

289 England invaded by two Scots armies at once. An. 1388.

Encouraged by this success, Robert determined to proceed on a more enlarged plan. Having assembled a parliament at Aberdeen, a double invasion of England was resolved upon. Two armies were raised; the one consisting of 25,000 men, commanded by the earls of Menteith and Fife, Douglas lord of Galloway, and Alexander Lindsay; the other army, consisting of the like number, was commanded by the earls of Douglas, March, Crawford, Moray, the lord high constable of Scotland, and other persons of distinction. The former entered Cumberland, and the latter Northumberland, both which counties they laid waste, and both armies were to meet within ten miles of Newcastle. The English were thrown into the greatest consternation. Newcastle was defended by the earl of Northumberland, whose age and infirmities rendered him incapable of taking the field; but his place was abundantly supplied by his two sons Henry and Ralph, the former of whom is known in English history by the name of *Hotspur*. The town was garrisoned by the flower of the English nobility and gentry, as well as the inhabitants of the adjacent countries, who had fled thither for refuge. Douglas selected 2000 foot and 300 horsemen out of the two armies, and encamped on the north side of the town, with a view, according to the Scots historians, of storming it next day. In the mean time, he was challenged by Hotspur to fight him hand to hand, with sharp ground spears, in sight of both armies. Douglas accepted the challenge, and Percy was unhorsed the first encounter, and obliged to take refuge within the portcullis or gate of the town; from whence Douglas brought off his antagonist's lance, with a pennon affixed to it, and swore in his hearing that he would carry it into Scotland. Next day Douglas attempted to storm the town; but, being repulsed in the attack, he decamped in the night. Percy, breathing furious revenge, pursued and overtook the Scots at Otterburn. His arrival was quite unexpected, so that the principal commanders of the Scottish army were sitting down to supper unarmed. The soldiers, however, were instantly prepared for battle; but in the hurry necessarily attending a surprise of this kind, Douglas forgot to put on his cuirass. Both leaders encouraged their men by the most animating speeches; and both parties waited for the rise of the moon, which happened that night to be unusually bright. The battle being joined on the moon's first appearance, the Scots began to give ground; but, being rallied by Douglas, who fought with a battle-axe, the English, though greatly superior in number, were totally routed. Twelve hundred were killed on the spot; and 100 persons of distinction, among whom were the two Percies, were made prisoners by Keith marischal of Scotland. On the side of the Scots, the greatest loss was that of the brave Earl Douglas, who was killed in consequence of going to battle without his armour, as above related. It was this single combat

290 Single combat between Earl Douglas and Henry Percy.

291 Battle of Otterburn.

292 The English defeated, and Earl Douglas killed.

Scotland. bat between Douglas and Percy, and the subsequent battle, which gave rise to the celebrated ballad of Chevy Chace.

In the mean time the bishop of Durham was marching towards Newcastle with an army of 10,000 men; but was informed by the runaways of Percy's defeat, which happened on the 21st of July 1388. In a council of war it was resolved to pursue the Scots, whom they hoped easily to vanquish, as being wearied with the battle of the preceding day, and laden with plunder. The earl of Moray, who commanded in chief, having called a consultation of his officers, resolved to venture a battle. The prisoners were almost as numerous as the whole Scots army; however, the generals required no more of them than their words of honour that they should continue inactive during the battle, and remain prisoners still. This condition being complied with, the Scots drew out their army for battle.—Their rear was secured by marshes, and their flanks by large trees which they had felled. In short, their appearance was so formidable, that the English, dreading to encounter a resolute enemy so strongly secured, retired to Newcastle, leaving the Scots at liberty to continue their march to their own country.

Robert being now oppressed with age, so that he could no longer endure the fatigues of government, the administration of affairs devolved on his second son the earl of Fife; for his eldest son was by nature indolent, and besides lame by an unlucky blow he had received from a horse. Early in the spring of 1389, he invaded England with success: but the same year a truce was concluded, to last from the 19th of June 1389 to the 16th of August 1392; in which the allies of both crowns were included. This truce was violently opposed by the nobility, who suspected their king of being too much under French influence. Upon this the court of France thought proper to send over ambassadors to persuade the nobility to comply; informing them, that in case of a refusal, they could expect no assistance either of men or money from the continent. With difficulty they prevailed, and peace between England and Scotland was once more restored. Scarcely, however, was this truce finished, when the peace of the nation was most scandalously violated by Robert's fourth son Alexander, the earl of Buchan, commonly called the *wolf of Badenoch*, from his savage disposition. This prince having a quarrel with the bishop of Murray, burnt the fine cathedral of Elgin, which has been called by historians the lanthorn and ornament of the north of Scotland. The king for this crime caused his son to be imprisoned; and a civil war would have been the consequence, had it not been for the veneration which the Scots retained for their old king. However, they did not long enjoy their beloved monarch; for he died on the 19th of April 1390, in the 75th year of his age, and the 19th of his reign.

293 Robert II. dies, and is succeeded by Robert III.

An. 1390.

On the death of Robert II. the crown devolved upon his eldest son John; but the name being thought unlucky in Scotland, he changed it for that of Robert, though he was still called by the commonalty *Robert John Fernzier*. He had been married to Annabella the daughter of Sir John Drummond, ancestor to the noble family of Perth; and was crowned along with his consort at Scone, on the 13th of August 1390. He confirmed the truce which had been entered into with England, and renewed the league with France; but the beginning of his reign was disturbed by the wars of the petty chieftains with each other. Duncan Stewart, son to Alexander earl of Buchan, who had died in prison for burning the cathedral of Elgin, assembling his followers under pretence of revenging his father's death, laid waste the county of Angus. Walter Ogilvy, the sheriff of Angus, attempting to repel the invaders, was killed, with his brother and 60 of their followers. The king then gave a commission to the earl of Crawford to suppress them; which he soon did, and most of them were either killed or executed. The followers of the earl of Buchan were composed of the wildest Highlanders, distinguished by the title of *Catterenes*, which answers to that of banditti. That such a race of people existed is certain from the records of Scotland; but it is not easy to determine how they obtained their subsistence, being void of the knowledge of agriculture and of every civil art. There is some reason to believe that many of them came from the Western isles; and that they or their ancestors had emigrated from the eastern parts of Ireland. The lands which they inhabited were never cultivated till towards the middle of the 17th century; and, according to the most authentic accounts, they lived entirely upon animal food.

294 Rebellion of the earl of Buchan.

295 Account of the Catterenes.

The earl of Crawford's success against the followers of Buchan encouraged Robert to intrust him with a commission for subduing other insurgents by whom the peace of the country was disturbed. The most remarkable of these were the *Clan Chattan* and *Clan Kay*. As both these tribes were numerous and brave, Crawford was not without apprehensions that they might unite against him as a common enemy, and defeat him if he attempted to suppress them by force. He proposed, therefore, that the two rival clans should each choose 30 men, to determine their differences by the sword, without being allowed the use of any other weapon. The king and his nobility were to be spectators of the combat; the conquered clan were to be pardoned for all their former offences, and the conquerors honoured with the royal favour. This proposal was readily accepted by both parties, and the north inch of Perth was to be the scene of action. But, upon mustering the combatants, it was found that one of them, belonging to the clan Chattan, had absented himself. It was proposed to balance this difference by withdrawing one of the combatants from the clan Kay; but not one of them could be prevailed on to resign his place. At last one Henry Wynd, a saddler, though no way connected with either party, offered to supply the place of him that was absent, on condition of his receiving a French crown of gold (about 7s. 6d. of our money); which was immediately paid him. The combat then began with incredible fury; but at last, through the superior valour and skill of Henry Wynd, victory declared in favour of the clan Chattan. Only ten of the conquerors, besides Wynd, were left alive; and all of them desperately wounded. Of the clan Kay only one remained; and he having received no hurt escaped by swimming across the Tay.

296 Battle between the champions of the clan Chattan and clan Kay.

While these internal broils were going on, the truce which had lately been concluded with England was so ill observed, that it became necessary to enter into fresh negociations. These, like others which had taken place before, had very little effect. The borderers on both sides

Scotland.

sides had been so accustomed to ravage and plunder, that they could not live in quiet. King Robert also was thought to be too much attached to the king of England. He had introduced the new title of *duke*, which he bestowed first on the prince royal, whom he created duke of Rothesay; but making an offer of that honour to one of the heads of the Douglas family, it was rejected with disdain. That powerful family had never lost sight of an ancient claim they had upon the castle of Roxburgh, which was still in the possession of the English; and this year the son of the earl of Douglas, Sir William Stewart, and others, broke down the bridge of Roxburgh, plundered the town, and destroyed the forage and corn there and in the neighbouring country. The English applied for satisfaction; but obtained none, as the confusion which involved the kingdom by the deposition of Richard II. and the accession of Henry IV. prevented them from having recourse to arms, the only argument to which the Scots patriots in those days would listen.

297 Title of duke introduced into Scotland. An. 1398.

An. 1400.

No sooner was the catastrophe of Richard known in Scotland than they resolved to avail themselves of it; and invading the north parts of England, demolished the castle of Wark, and laid the neighbouring country under contribution. The situation of Henry's affairs did not admit of his resenting this insult. He contented himself with nominating the earl of Westmoreland, to treat with the Scots about a truce or peace; or, if that could not be obtained, to make a mutual agreement, that the towns of Dumfries in Scotland, and Penrith in England, should be free from hostilities during the war. To this proposal the Scots paid no regard; and being encouraged by the court of France, who resented the deposition of Richard, they renewed their ravages in England. In 1400, the king of England called a parliament, in order to consult on the most proper means of repelling the Scottish invasions; and in this he was greatly assisted by the divisions of the Scots among themselves. The duke of Rothesay, the heir apparent of the crown, was now grown up to man's estate, and it was thought proper to provide a suitable consort for him. The king is said to have scandalously put up his son's marriage at auction, and offered him to the lady whose father could give him the highest price. The earl of March was the highest bidder; and advanced a considerable sum in ready money, on condition that his daughter should become the royal bride.—This sordid match was opposed by Douglas, who proposed his own daughter the lady Margery. So degenerate was the court of Scotland at this time, that neither the king nor the duke of Rothesay opposed this proposal of a new match, because it was to be purchased with a fresh sum; and they even refused to indemnify the earl of March for the money he had already advanced.

298 Mercenary behaviour of Robert with regard to his son's marriage.

As the duke of Albany sided with Douglas, a council of the nobility was privately assembled, which annulled the contract of the Lady Elizabeth Dunbar, the earl of March's daughter, in favour of the lady Margery, daughter to the earl of Douglas; but without taking any measures for repaying the money to the earl of March. The continuator of Fordun informs us, that the earl of Douglas paid a larger sum for his daughter's fortune than that which had been advanced by the earl of March, and that the earl of Douglas's daughter was married to the duke of Rothesay: that before the marriage was celebrated, March demanded that the money he had advanced should be reimbursed; but receiving an unsatisfactory answer, he declared that as the king had not fulfilled his bargain, he would bring unexpected calamities upon the country. Accordingly he fled into England, leaving his castle of Dunbar to the custody of his nephew Robert Maitland, who soon after put it into the hands of the earl of Douglas, called in history *Archibald the Grim*, from the sternness of his visage.

299 Earl of March revolts.

As soon as Robert heard of the revolt of the earl of March, he sent ambassadors demanding back his subject; but the request was disregarded. On the other hand, the earl of March demanded repossession of the castle of Dunbar, pleading, that he had committed no act of treason, but had come to England under a safe-conduct from king Henry, on purpose to negociate his private affairs: but this request was disregarded; on which he sent for all his family and followers to England, where they joined him in great numbers. This produced a war between the two kingdoms. The earl of March, with Henry Percy surnamed *Hotspur*; invaded Scotland, penetrating as far as Haddington, and carrying off great numbers of the inhabitants into captivity. Thence they went to Peebles, and then to Linton, ravaging the country as they passed along. They next besieged the castle of Hales, and took several of the neighbouring forts; but Archibald the Grim, or rather his son, having raised an army against them, they were struck with terror, and fled to Berwick, to the gates of which they were pursued by the Scots. At this time the Scottish admiral, Sir Robert Logan, was at sea with a squadron; but miscarried in an attempt he made on some English ships of war that protected their fleet while fishing on the coast of Scotland. After this the English plundered the Orkney islands; which, though belonging to the crown of Norway, were at that time governed, or rather farmed, by Sinclair the Scots earl of Orkney and Caithness.

300 Invasion of Scotland by Henry Percy.

All this time the earl of March continued under the protection of the king of England. He had received repeated invitations to return to his allegiance; but all of them being rejected, he was proclaimed a traitor; and the Scottish governor made a formal demand of him from King Henry. With this the latter not only refused to comply, but renewed his league with the lord of the isles. He pretended also, that at this time he had intercepted some letters from the Scottish regency, which called him "a traitor in the highest degree;" and he alleged this as a reason why he protected not only the earl of March, but the lord of the isles.

On the 25th of July 1400, the earl of March renounced his homage, fealty, and service, to the king of Scotland, and transferred them to Henry by a formal indenture. For this the earl was rewarded with a pension of 500 merks sterling, and the manor of Chipestone in Sherwood forest. Henry now began to revive the claim of homage from the kings of Scotland, and even to meditate the conquest of the kingdom. He had indeed many reasons to hope for success; the principal of which were, the weakness of the Scottish government, the divided state of the royal family, and the dissensions among the chief nobility. For this purpose he made great.

301 Henry IV. projects the conquest of Scotland.

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great preparations both by sea and land; but before he set out on his journey, he received a letter from the duke of Rothesay, full of reproaches on account of the presumptuous letters which Henry had addressed to Robert and his nobility. The letter was addressed by the duke to his adversary of England, as the Scots had not yet recognised the title of Henry to the crown of England. Towards the end of it the duke, according to the custom of the times, desired Henry, in order to avoid the effusion of Christian blood, to fight him in person with two, three, or a hundred noblemen on a side. But this challenge produced no other answer from Henry, than that "he was surprised that the duke of Rothesay should consider noble blood as not being *Christian*, since he desired the effusion of the one, and not of the other." Henry arrived at Leith on the very day on which he had appointed the Scottish nobility to meet him and pay their homage, and conclude a peace between the two crowns. In all probability, he expected to have been joined by great numbers of the discontented Scots; and he flattered the English with a promise of raising the power and glory of their country to a higher pitch than it had ever yet known. Under this pretext, he seized on the sum of 350,000 pounds in ready money, besides as much in plate and jewels, which had been left by Richard in the royal treasury. He raised also vast contributions on the clergy and nobility, and on the principal towns and cities. At last, finding that neither his vast preparations, nor the interest of the earl of March, had brought any of the Scots to his standard, he laid siege to Edinburgh castle, which was defended by the duke of Rothesay, and, as some say, by the earl of Douglas. The duke of Albany, brother to King Robert, was then in the field with an army, and sent a letter to King Henry, promising, that if he would remain where he was for six days, he would give him battle, and force him to raise the siege, or lose his life. When this was written, the duke was at Calder muir; and Henry was so much pleased with the letter, that he presented the herald who delivered it with his upper garment, and a chain of gold; promising, on his royal word, that he would remain where he was until the appointed day. On this occasion, however, the duke forfeited his honour; for he suffered six days to elapse without making any attempt on the English army.

Henry, in the mean time, pushed on the siege of Edinburgh castle; but met with such a vigorous resistance from the duke of Rothesay, that the hopes of reducing it were but small. At the same time he was informed that the Welsh were on the point of rebellion under the famous chieftain *Owen Glendower*. He knew also that many of the English were highly dissatisfied with his title to the crown; and that he owed his peaceable possession of it to the moderation of Mortimer, also called the earl of March, who was the real heir to the unfortunate Richard, but a nobleman of no ambition. For these reasons he concluded it best to raise the siege of Edinburgh castle, and return to England. He then agreed to a truce for six weeks, but which was afterwards prolonged, probably for a year, by the commissioners of the two crowns, who met at Kelso.

302 But fails in his attempt.

In 1401, Scotland suffered a great loss by the death of Walter Trail, the archbishop of St Andrew's, a most exemplary patriot, and a person of great influence. Archibald Douglas the Grim had died some time before, and his loss was now severely felt; for the king himself, naturally feeble, and now quite disabled by age and infirmities, was sequestered from the world in such a manner, that we know not even the place of his residence during the last invasion of Scotland by the English. This year also Queen Annabella died, so that none remained who were able to heal those divisions which prevailed among the royal family. Robert duke of Albany, a man of great ambition, was an enemy to the duke of Rothesay, the heir-apparent to the crown; and endeavoured, for obvious reasons, to impress his father with a bad opinion of him. This prince, however, appears to have been chargeable with no misdemeanour of any consequence, except his having debauched, under promise of marriage, the daughter of William Lindsay of Rossy. But this is not supported by any credible evidence; and, though it had been true, could never have justified the horrid treatment he met with, and which we are now to relate.

303 Conspiracy against the Duke of Rothesay,

One Ramorgny, a man of the vilest principles, but an attendant on the duke of Rothesay, had won his confidence; and, perceiving how much he resented the conduct of his uncle the duke of Albany, had the villany to suggest to the prince the despatching him by assassination. The prince rejected this infamous proposal with such horror and displeasure, that the villain being afraid he would disclose it to the duke of Albany, informed the latter, under the seal of the most inviolable secrecy, that the prince intended to murder him; on which the duke, and William Lindsay of Rossy his associate in the treason, resolved on the prince's death. By practising on the doating king, Lindsay and Ramorgny obtained a writ directed to the duke of Albany, impowering him to arrest his son, and to keep him under restraint, in order for his amendment. The same traitors had previously possessed the prince with an apprehension that his life was in danger, and had persuaded him to seize the castle of St Andrew's, and keep possession of it during the vacancy of that see. Robert had nominated one of his bastard brethren, who was then deacon of St Andrew's, to that bishopric: but being a person no way fitted for such a dignity, he declined the honour, and the chapter refused to elect any other during his lifetime; so that the prince had a prospect of possessing the castle for some time. He was riding thither with a small attendance, when he was arrested between the towns of Nidi and Stratirum (according to the continuator of Fordun), and hurried to the very castle of which he was preparing to take possession.

The duke of Albany, and the earl of Douglas, who was likewise the prince's enemy, were then at Culross, waiting the event of their detestable conspiracy; of which they were no sooner informed, than they ordered a strong body of ruffians to carry the royal captive from the castle of St Andrew's; which they did, after clothing him in a russet cloak, mounting him on a very sorry horse, and committing him to the custody of two execrable wretches, John Selkirk and John Wright, who were ordered by the duke of Albany to starve him to death. According to Buchanan, his fate was for some time prolonged by the compassion of one of his keeper's daughters, who thrust thin oaten cakes through the chinks

304 who is starved to death.

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chinks of his prison-walls, and by a woman who, being a wet nurse, found means to convey part of her milk to him through a small tube. Both these charitable females were detected, and put to death; the young lady's inhuman father being himself the prosecutor. The prince himself died in a few days after, on Easter-eve, his hunger having impelled him to devour part of his own flesh.

In the mean time, Robert, being yet ignorant of the murder of his son, had renewed, or rather consented to renew, hostilities with England. On the expiration of the truce, Henry had sent a commission to the earls of Northumberland and Westmoreland, to offer the Scots any terms they could reasonably desire; but every offer of this kind being rejected, there was a necessity for renewing hostilities. The earl of March had received another pension from Henry, on condition of his keeping on foot a certain number of light troops to act against the Scots. This had been done; and so effectually did these now annoy their enemies, that the earl of Douglas was obliged to take the field against them. By dividing his men into small parties, he repressed the depredations of these invaders; and Thomas Haliburton, the commander of one of the Scottish parties, made incursions into England as far as Bamborough, from whence he returned with a considerable booty. This encouraged another chieftain, Patrick Hepburn, to make a similar attempt: but being elated with his success, he remained too long in the enemy's country; so that the earl of March had time to send a detachment to intercept him on his return. This produced a desperate encounter, in which Hepburn was killed; the flower of the youth of Lothian, who had attended in this expedition, were cut off; and scarcely a single Scotsman remained unwounded.

305 A body of Scots cut off by the English.

On the news of this disaster, the earl of Douglas applied to the duke of Albany for assistance. He was immediately furnished with a considerable army; according to some, consisting of 10,000; according to others of 13,000; and according to the English historians, of 20,000 men. Murdoc, the son of the duke, attended the earl on this expedition, as did also the earls of Moray, Angus, Orkney, and many others of the chief nobility, with 80 knights. The Scots on this occasion conducted themselves with the same imprudence as before. Having penetrated too far into the country, they were intercepted by the English on their return, and obliged to engage at a place called *Homeldon*, under great disadvantages. The consequence was, that they were utterly defeated, and almost the whole army either killed or taken.

306 Their defeat at Homeldon. An. 1402.

Henry Hotspur, to whom chiefly this victory was owing, resolving to pursue the advantage he had gained, entered the southern parts of the kingdom, and laid siege to a castle called *Cocklaws*, on the borders of Teviotdale. The castle was for some time bravely defended: but at last the governor entered into a treaty, by which he agreed to deliver up the castle, in case it was not relieved by the king or governor in six weeks; during which time no additional fortifications were to be made. But while the English were retiring, one of Percy's soldiers pretended that the Scots had broken the capitulation, by introducing a mattock into the place. The governor, hearing of this charge, offered to fight any Englishman who should engage to make it good.

307 Cocklaws castle besieged by the English.

A champion was accordingly singled out, but was defeated by the Scotsman; and the English army retired according to agreement. The matter then being debated in the Scotish council, it was resolved to send relief to the castle. Accordingly the Duke of Albany, with a powerful army, set out for the place; but before he came there, certain news were received of the defeat and death of Hotspur, at Shrewsbury, as related under the article ENGLAND, N° 182.

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In the year 1404, King Henry, exceedingly desirous of a peace with Scotland, renewed his negociations for that purpose. These, however, not being attended with success, hostilities were still continued, but without any remarkable transaction on either side. In the mean time, King Robert was informed of the miserable fate of his eldest son the duke of Rothesay; but was unable to resent it by executing justice on such a powerful murderer. After giving himself up to grief, therefore, for some time, he resolved to provide for the safety of his second son James, by sending him into France. This scheme was not communicated to the duke of Albany; and the young prince took shipping with all imaginable secrecy at the Bass, under the care of the earl of Orkney. On his voyage he was taken by an English privateer off Flamborough-head, and brought before Henry. The English monarch having examined the attendants of the prince, they told him that they were carrying the prince to France for his education. "I understand the French tongue (replied Henry), and your countrymen ought to have been kind enough to have trusted me with their prince's education." He then committed the prince and his attendants close prisoners to the Tower of London. The news of this disaster arrived at the castle of Rothesay in the isle of Bute (the place of Robert's residence) while the king was at supper. The news threw him into such an agony of grief, that he died in three days, the 29th of March 1405, after having reigned nearly 15 years.

An. 1404.

308 The Scottish prince, James, sent to France, but is taken by the English.

309 Robert dies of grief. An. 1405.

By the death of Robert, and the captivity of the prince, all the regal power devolved on the duke of Albany, who was appointed regent by a convention of the states assembled at Scone. The allegiance of the people, however, to their captive prince could not be shaken; so that the regent was obliged to raise an army for the purpose of rescuing him. Henry summoned all his military tenants, and made great preparations: but, having agreed to treat of a final peace with Ireland and the lord of the Isles, the regent laid hold of this as a pretence for entering into a new negociation with the English monarch; and a truce was concluded for a year, during which time all differences were to be settled. In consequence of this agreement, Rothesay, king at arms, was appointed commissary-general for the king and kingdom of Scotland; and in that quality repaired to the court of England. At the time when the prince of Scotland was taken, it seems there existed a truce, however ill observed on both sides, subsisting between the two nations. Rothesay produced the record of this truce, which provided that the Scots should have a free navigation; and in consequence of this, he demanded justice of the captain and crew of the privateer who had taken the prince. Henry ordered the matter to be inquired into: but the English brought their complaints as well as the Scots; and the claims

310 The duke of Albany regent.

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claims of both were so intricate, that the examination fell to the ground, but at the same time the truce was prolonged.

311 Schemes of Henry against Scotland. An. 1410.

In the end of the year 1409, or the beginning of 1410, the war was renewed with England, and Henry prepared to strike a fatal blow which he had long meditated against Scotland. He had, as we have seen, entered into a league with the lord of the Isles, where a considerable revolution then happened. Walter Lesly had succeeded to the estate and honours of the earl of Ross, in right of his wife, who was the heir. By that marriage he had a son named *Alexander*, who succeeded him; and a daughter, Margaret, who was married to the lord of the Isles. This Alexander had married one of the regent's daughters; and dying young, he left behind him an only daughter, Euphane, who was deformed, and became a nun at North Berwick. Her grandfather, the regent, procured from her a resignation of the earldom of Ross, to which she was undoubted heir, in favour of John earl of Buchan, but in prejudice of Donald lord of the Isles, who was the son of Margaret, sister to the earl Alexander, and consequently the nearest heir to the estate after the nun. Donald applied for redress; but his suit being rejected, he, with his brother John, fled into England, where he was most graciously received by King Henry. According to the instructions given him by the English monarch, Donald returned to his own dominions in the Isles, where he raised an army, and, passing over into Rossshire, violently seized on the estate in dispute. In a short time he found himself at the head of 10,000 Highlanders; with whom he marched into the province of Moray, and from thence to Strathbogie and Garioch, which he laid under contribution. Advancing towards Aberdeen, with a view to pay his troops with the plunder of that city, which was then a place of considerable trade, he was met by the earl of Marr, whom the regent had employed to command against him, at a village called *Harlaw*, in the neighbourhood of Aberdeen. A fierce engagement ensued, in which great numbers were killed on both sides, and the victory remained uncertain: but Donald, finding himself in the midst of an enemy's country, where he could raise no recruits, began to retreat next day; and the shattered state of the royal army preventing him from being pursued, he escaped to his own dominions, where in a short time he submitted, and swore allegiance to the crown of Scotland.

312 Battle of Harlaw.

In the mean time, Henry continued the war with Scotland, and refused to renew the truce, though frequently solicited by the Scots. He had now, however, sustained a great loss by the defection of the earl of March, who had gone over to the Scots, though the historians have not informed us of his quarrel with the English monarch. On his return to Scotland, he had been fully reconciled to the Douglas family, and now strove to distinguish himself in the cause of his country. This, with the countenance shown the Scots by the court of France, a bull published by the pope in their favour, and the vigorous behaviour of the regent himself, contributed to reduce Henry to reason; and we hear of no more hostilities between the two nations till after the death of the English monarch, which happened in the year 1413.

313 The earl of March returns to his allegiance to Scotland.

An. 1415.

In 1415, the truce being either broken or expired, the Scots made great preparations for besieging Berwick. The undertaking, however, came to nothing; all that was done during the campaign being the burning of Penrith by the Scots, and of Dumfries by the English. Next year a truce was agreed on, and a treaty entered into for the ransom of king James; which was so far advanced, that the English king agreed to his visiting Scotland, provided he engaged to forfeit 100,000 pounds sterling, in case of his failure to return by a certain day. For reasons now unknown, this treaty was broken off, and vast preparations were made for a new invasion of Scotland; which, however, was executed with so little success, that it became known among the common people of Scotland by the name of the *fule raid*, or the foolish expedition.

314 Unsuccessful expedition of Henry.

An. 1420.

In 1420, died Robert Duke of Albany, regent of Scotland, at the age of 80; and such was the veneration which the Scots had for his memory, that his post of regent was conferred upon his eldest son Murdoch, though a person noway qualified for that station.—The war with England was now discontinued; but in France Henry met with the greatest opposition from the Scots auxiliaries, insomuch, that at last he proclaimed all the Scots in the service of the dauphin to be rebels against their lawful sovereign, and threatened to treat them as such wherever he found them. It was not long before he had an opportunity of putting this menace in execution; for the town and castle of Melun being obliged through famine to capitulate, one of the articles of capitulation was, that all the English and Scots in the place should be resigned to the absolute disposal of the king of England; and, in consequence of his resolution above mentioned, caused twenty Scots soldiers who were found in the place to be hanged as traitors. In 1421, Henry returned to England, and with him James the Scots king. On his arrival there, he was informed that the Scots, under the earl of Douglas, had made an irruption into England, where they had burned Newark, but had been forced to return to their own country by a pestilence, though a new invasion was daily expected. Instead of resenting this insult, Henry invited the earl of Douglas to a conference at York; in which the latter agreed to serve him during life, by sea and land, abroad or at home, against all living, except his own liege-lord the king of Scotland, with 200 foot, and as many horse, at his own charges; the king of England, in the mean time, allowing an annual revenue of 200*l.* for paying his expense in going to the army by sea or land.

315 His cruelty to the Scots in France.

At the same time, a new negociation was set on foot for the ransom of king James; but he did not obtain his liberty till the year 1424. Henry V. was then dead; and none of his generals being able to supply his place, the English power in France began to decline. They then became sensible how necessary it was to be at peace with Scotland, in order to detach such a formidable ally from the French interest. James was now highly caressed, and at his own liberty, within certain bounds. The English even consulted him about the manner of conducting the treaty for his ransom; and one Dougal Drummond a priest, was sent with a safe-conduct for the bishop of Glasgow chancellor of Scotland, Dunbar earl of March, John Montgomery of Ardrossan, Sir Patrick Dunbar of Bele, Sir Robert Lawder of Edrington,

316 Treaty for the liberty of James.

Scotland. rington, Sir William Borthwic of Borthwic, and Sir John Forrester of Corstorphin, to have an interview, at Pomfret, with their master the captive king of Scotland, and there to treat respecting their common interests. Most of these noblemen and gentlemen had before been nominated to treat with the English about their king's return; and Dougal Drummond seems to have been a domestic favourite with James. Hitherto the Scottish king had been allowed an annual revenue of 700*l.*: but while he was making ready for his journey, his equipages and attendants were increased to those befitting a sovereign; and he received a present from the English treasury of 100*l.* for his private expenses. That he might appear with a grandeur every way suitable to his dignity, at every stage were provided relays of horses, and all manner of fish, flesh, and fowl, with cooks and other servants for furnishing out the most sumptuous royal entertainment. In this meeting at Pomfret, James acted as a kind of mediator between the English and his own subjects, to whom he fully laid himself open; but, in the mean time, the English regency issued a commission for settling the terms upon which James was to be restored, if he and his commissioners should lay a proper foundation for such a treaty. The English commissioners were, the bishops of Durham and Worcester, the earls of Northumberland and Westmoreland, the lords Nevil, Cornwal, and Chaworth, with master John Wodeham, and Robert Waterton. The instructions they received, form one of the most curious passages of this history; and we shall here give them, as they are necessary for confirming all we have said concerning the dispositions of the two courts at this juncture.

First, To make a faint opposition to any private conference between the king of Scotland and the Scotch commissioners.

Secondly, To demand that, before the said king shall have his full liberty, the kingdom of Scotland should pay to the English government at least thirty-six thousand pounds as an equivalent, at two thousand pounds a year, for the entertainment of King James, who was maintained by the court of England, and not to abate any thing of that sum; but if possible to get forty thousand pounds.

Thirdly, That if the Scots should agree to the payment of the said sum, the English commissioners should take sufficient security and hostages for the payment of the same; and that if they should not (as there was great reason for believing they would) be so far mollified, by such easy terms, as to offer to enter upon a negociation for a final and perpetual peace between the two people, that then the English should propose the same in the most handsome manner they could. Farther, that if such difficulties should arise as might make it impracticable immediately to conclude such perpetual peace, that the English ambassadors should, under pretence of paving a way for the same, propose a long truce.

Fourthly, That if the English commissioners should succeed in bringing the Scots to agree to the said truce, they should further urge, that they should not send to Charles of France, or to any of the enemies of England, any succours by sea or land. Farther, that the said English commissioners should employ their utmost endeavours to procure the recal of the troops already furnished by the Scots to France. The English are commanded to insist very strenuously upon this point, but with discretion. Scotland.

Fifthly, If the Scots should, as a further bond of amity between the two nations, propose a marriage between their king and some noblewoman of England, the English commissioners are to make answer, "That the king of Scots is well acquainted with many noblewomen, and even those of the blood-royal, in England; and that if the king of the Scots shall please to open his mind more freely on that head, the English commissioners shall be very ready to enter upon conferences thereupon." But (continues the record) in case the Scotch commissioners should make no mention of any such alliance by marriage, it will not appear decent for the English to mention the same, because the women of England, at least the noblewomen, are not used to offer themselves in marriage to men.

Sixthly, If there should be any mention made concerning reparation of damages, that the commissioners should then proceed upon the same as they should think most proper; and that they should have power to offer safe-conduct to as many of the Scots as should be demanded, for to repair to the court of England. Those instructions are dated at Westminster, July 6th 1423.

Nothing definitive was concluded at this treaty, but that another meeting should be held at York instead of Pomfret. This meeting accordingly took place. The English commissioners were, Thomas bishop of Durham, chancellor of England, Philip bishop of Winchester, Henry Percy earl of Northumberland, and Mr John Wodeham. Those for Scotland were, William bishop of Glasgow, George earl of March, James Douglas of Balveny, his brother Patrick abbot of Cambuskenneth, John abbot of Balmerino, Sir Patrick Dunbar of Bele, Sir Robert Lauder of Edrington, George Borthwic archdeacon of Glasgow, and Patrick Houston canon of Glasgow. On the 10th of September, after their meeting, they came to the following agreement.

First, That the king of Scotland and his heirs, as an equivalent for his entertainment while in England, should pay to the king of England and his heirs, at London, in the church of St Paul, by equal proportions, the sum of 40,000*l.* sterling.

Secondly, That the first payment, amounting to the sum of ten thousand merks, should be made six months after the king of Scotland's entering his own kingdom; that the like sum should be paid the next year, and so on during the space of six years, when the whole sum would be cleared; unless, after payment of forty thousand merks, the last payment of ten thousand should be remitted, at the intreaty of the most illustrious prince Thomas duke of Exeter.

Thirdly, That the king of Scotland, before entering his own kingdom, should give sufficient hostages for performance on his part. But, in regard that the Scots plenipotentiaries had no instructions concerning hostages, it was agreed,

Fourthly, That the king of Scotland should be at Branspath, or Durham, by the first of March next, where he should be attended by the nobles of his blood, and other subjects, in order to fix the number and quality of the hostages.

Fifthly, That, to cement and perpetuate the amity of the two kingdoms, the governor of Scotland should send

Scotland. send ambassadors to London, with power to conclude a contract of marriage between the king of Scotland and some lady of the first quality in England.

It is probable that James had already fixed his choice upon the lady Joan, daughter to the late earl of Somerset, who was son to John of Gaunt duke of Lancaster, by his second marriage; but he made his people the compliment, not only of consulting their opinion, but of concluding the match. The commissioners, after their agreement at York, proceeded towards London; and Thomas Somerville of Carnwath, with Walter Ogilvy, were added to their number. Being arrived at that capital, they ratified the former articles, and undertook for their king, that he should deliver his hostages to the king of England's officers, in the city of Durham, before the last day of the ensuing month of March; that he should also deliver to the said officers four obligatory letters, for the whole sum of 40,000*l.* from the four burghs of Edinburgh, Perth, Dundee, and Aberdeen; that he should give his obligatory letter to the same purpose, before removing from Durham, and should renew the same four days after his arrival in his own kingdom; that the hostages might be changed from time to time for others of the same fortune and quality; that if any of them should die in England, others should be sent thither in their room; and that while they continued to stay in England, they should live at their own charges.

317 Marriage of King James. An. 1424.

The marriage of James with the lady Joan Beaufort was celebrated in the beginning of February 1424. The young king of England presented him with a suit of cloth of gold for the ceremony; and the next day he received a legal discharge of 10,000 pounds, to be deducted from the 40,000 at which his ransom was fixed, and which sum was given as the marriage-portion of the lady. The ceremony being performed, the king and queen set out for Durham, where the hostages were waiting; and arrived at his own dominions, along with the earl of Northumberland and the chief of the northern nobility, who attended him with great pomp. On the 20th of April the same year, he was crowned at Scone; after which ceremony, he followed the example practised by other sovereigns at that time, of knighting several noblemen and gentlemen.

During the dependence of the treaty for James's release, the Scots had emigrated to France, in such numbers, that no fewer than 15,000 of them now appeared in arms under the duke of Touraine; but as the history of the war in that country has already been given under the article FRANCE, we shall take no further notice of it, but return to the affairs of Scotland.

318 He reforms several abuses in Scotland.

On his return James found himself in a disagreeable situation. The great maxim of the duke of Albany, when regent, had been to maintain himself in power by exempting the lower class of people from taxes of every kind. This plan had been continued by his son Murdoch; but as the latter was destitute of his father's abilities, the people abused their happiness, and Scotland became such a scene of rapine, that no commoner could say he had a property in his own estate. The Stewart family, on their accession to the crown of Scotland, possessed a very considerable patrimonial estate, independent of the standing revenues of the crown, which consisted chiefly of customs, wards, and reliefs. The revenues of the paternal estate belonging to James, had they been regularly transmitted to him, would have more than maintained him in a splendour equal to his dignity, while he was in England; nor would he in that case have had any occasion for an allowance from the king of England. But as the duke of Albany never intended that his nephew should return, he parcelled out among his favourites the estates of the Stewart family, in such a manner that James on his return found all his patrimonial revenues gone, and many of them in the hands of his best friends; so that he had nothing to depend on for the support of himself and his court but the crown-revenues above mentioned, and even some of these had been mortgaged during the late regency. This circumstance, of itself sufficiently disagreeable, was attended with two others, which tended to make it more so. The one was, that the hostages which had been left for the king's ransom in England, being all persons of the first rank, were attended by their wives, families, children, and equipages, which rivalled those of the same rank in England, and drew a great deal of ready money out of the nation. The other circumstances arose from the charge of the Scots army in France; where Charles, who had never been in a condition to support it, was now reduced to the utmost necessity; while the revenues of James himself were both scanty and precarious. To remedy these inconveniences, therefore, the king obtained from his parliament an act obliging the sheriffs of the respective counties to inquire what lands and estates had belonged to his ancestors David II. Robert II. and Robert III.; and James formed a resolution of resuming these lands wherever they could be discovered, without regard to persons or circumstances. On this occasion many of the most illustrious personages in the kingdom were arrested: the duke of Albany, his two sons, and the earl of Lennox the duke's father-in-law, were put to death, though their crimes are not specified by historians.

319 Several of the nobility executed.

James now proceeded with great spirit to reform the abuses which had pervaded every department of the state, protected and encouraged learning and learned men, and even kept a diary in which he wrote down the names of all the learned men whom he thought deserving of his encouragement. James himself wrote some poetry; and in music, was such an excellent composer, that he is with good reason looked upon as the father of Scots music, which has been so much admired for its elegant simplicity. He introduced organs into his chapels, and a much better style of architecture into all buildings, whether civil or religious. Nor did he confine his cares to the fine arts, but encouraged and protected those of all kinds which were useful in society; and, in short, he did more towards the civilization of his people than had been done by any of his predecessors.

In the mean time the truce continued with England. James, however, seemed not to have any inclination to enter into a lasting alliance with that kingdom. On the contrary, in 1428, he entered into a treaty with France; by which it was agreed, that a marriage should be concluded between the dauphin of France, afterwards Louis XI., and the young princess of Scotland; and so great was the necessity of King Charles for troops at that time, that he demanded only 6000 forces as a portion for the princess.

The rest of the reign of James was spent in reforming

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ing abuses, curbing the authority of the great barons, and recovering the royal estates out of the hands of usurpers. In this, however, he used so much severity, that he was at last murdered, in the year 1437. The perpetrators of this murder were the earl of Athol; Robert Graham, who was connected with the earl, and who was discontented on account of his losing the estate of Strathearn, which had been re-annexed to the crown; and Robert, grandchild and heir to the earl of Athol, and one of the king's domestics. The king had dismissed his army, without even reserving to himself a body-guard, and was at supper in a Dominican convent in the neighbourhood of Perth. Graham had for some time been at the head of a gang of outlaws, and is said to have brought a party of them to Perth in the dead of the night, where he posted them near the convent. Walter Straton, one of the king's cup-bearers, went to bring some wine to the king while at supper; but perceiving armed men standing in the passage, he gave the alarm, and was immediately killed. Catharine Douglas, one of the queen's maids of honour, ran to bolt the outer door; but the bar was taken away by Robert Stuart, in order to facilitate the entrance of the murderers. The lady thrust her arm into the staple; but it was instantly broken, and the conspirators rushed in upon the king. Patrick Dunbar, brother to the earl of March, was killed in attempting to defend his sovereign, and the queen received two wounds in attempting to interpose herself betwixt her husband and the daggers of the assassins. James defended himself as long as he could; but at last expired under the repeated strokes of his murderers, after having received 28 wounds.

320 The king murdered. An. 1437.

321 Review of his reign.

In the reign of James I. several important regulations were made for the improvement of the internal polity of the kingdom. James's long residence in England, then a great and happy nation, had taught him, that the prosperity of a people depended much on the wisdom of the legislature, in enacting salutary laws, and on the activity of the chief magistrates in putting them in execution. In his third parliament, was passed an act, which affords the first appearance of a College of Justice in Scotland. By this it was ordained, that the king might appoint the chancellor, and three discreet persons of the three estates, to act as the *Session*, whenever the king should think fit, three times in the year, for determination of such causes as had before been adjudged by the king and his council. In 1425, it was enacted, that six wise men of the three estates should examine the books of law, which then consisted of what were called *Regiam Majestatem* and *Quoniam Archiamenta*, and should amend what needed amendment. Various statutes were made, called the *Black Acts*, for preserving domestic tranquillity, diminishing the exorbitant power of the nobles, and promoting religious worship. Happy would it have been for Scotland if so wise a monarch had lived to execute strictly what had been enacted in so many parliaments for the general good of a wretched nation.

322 Succeeded by James II. 20th March 1437.

After the murder of James I. the crown devolved on his son James II. at that time only seven years of age. A parliament was immediately called by the queen-mother, at which the most cruel punishments were decreed to the murderers of the late king. The crime, no doubt, deserved an exemplary punishment; but the barbarities inflicted on some of those wretches are shocking to relate. Within less than six weeks after the death of the king, all the conspirators were brought to Edinburgh, arraigned, condemned, and executed. The meaner sort were hanged; but on the earl of Athol and Robert Graham the most cruel torments were inflicted, such as pincing with hot irons, dislocation of the joints, &c. The earl of Athol had, besides, a crown of red-hot iron put on his head; and was afterwards cut up alive, his heart taken out, and thrown into a fire. In short, so dreadful were these punishments, that Æneas Sylvius, the pope's nuncio, who beheld them, said, that he was at a loss to determine whether the crime committed by the regicides, or the punishment inflicted upon them, was the greater.

Scotland.

An. 1438.

As the late king had prescribed no form of regency in case of his death, the settlement of the government became a matter of great difficulty as well as importance. Archibald earl of Douglas, who had been created duke of Touraine in France, was by far the greatest subject in the kingdom; but as he had not been a favourite in the preceding reign, and the people were now disgusted with regencies, he was not formally appointed to the administration, though by his high rank he in fact enjoyed the supreme power as long as he lived; which, however, was but a short time. He died the same year (1438); and Sir Alexander Livingstone of Callendar was appointed to succeed him as governor of the kingdom, that is, to have the executive power, while William Crichton, as chancellor, had the direction of the civil courts. This was a most unfortunate partition of power for the public. The governor and chancellor quarrelled; the latter took possession of the king's person and the castle of Edinburgh, to neither of which he had any right; but the former had on his side the queen-mother, a woman of intrigue and spirit. Her son was shut up in the castle of Edinburgh; and in a short time there was no appearance either of law or government in Scotland. The governor's edicts were counteracted by those of the chancellor under the king's name, and those who obeyed the chancellor were punished by the governor; while the young earl of Douglas, with his numerous followers and dependents, was a declared enemy of both parties, whom he equally sought to destroy.

323 Supreme power divided between the governor and chancellor of the kingdom.

The queen-mother demanded access to her son, which Crichton could find no pretext for denying her; and she was accordingly admitted with a small train into the castle of Edinburgh. She played her part so well, and dissembled with so much art, that the chancellor, believing she had become a convert to his cause, treated her with unbounded confidence, and suffered her at all hours to have free access to her son's person. Pretending that she had vowed a pilgrimage to the white church of Buchan, she recommended the care of her son's person, till her return, to the chancellor, in the most pathetic and affectionate terms: but, in the mean time, she secretly sent him to Leith, packed up in a clothes-chest; and both she and James were received at Stirling by the governor before the escape was known. As every thing had been managed in concert with Livingstone, he immediately called together his friends; and laying before them the tyrannical behaviour of the chancellor, it was resolved to besiege him in the castle of Edinburgh, the queen promising to open her own gra-

324 The queen-mother sets her son at liberty.

naries

Scotland.

naries for the use of the army. The chancellor foresaw the storm that was likely to fall upon him, and sought to prevent it by applying to the earl of Douglas. That haughty nobleman answered him in the terms already mentioned, and that he was preparing to exterminate both parties. The siege of Edinburgh castle being formed, the chancellor demanded a parley, and a personal interview with the governor; to which the latter, who was no stranger to the sentiments of Douglas, readily agreed. Common danger united them in a common cause; and the chancellor resigning to the other the custody of the castle and the king's person, with the highest professions of duty and loyalty, the two competitors swore an inviolable friendship for each other. Next day the king cemented their union, by confirming both of them in their respective charges.

325 Intestine broils.

The lawless example of the earl of Douglas encouraged the other great landholders to gratify their private animosities, sometimes at the expense of their honour as well as their humanity. A family difference happened between Sir Allan Stuart of Darnley, and Thomas Boyd of Kilmarnock; but it was concluded that both parties should come to a peaceable agreement at Polmaisthorn, between Linlithgow and Falkirk, where Stuart was treacherously murdered by his enemy. Stuart's death was revenged by his brother, Sir Alexander Stuart of Beilmouth, who challenged Boyd to a pitched battle, the principals being attended by a retinue which carried the resemblance of small armies. The conflict was fierce and bloody, each party retiring in its turn, and charging with fresh fury; but at last victory declared itself for Stuart, the bravest of Boyd's attendants being cut off in the field. About this time, the islanders, under two of their chieftains, Lauchlan Maclean and Murdoc Gibson, notorious freebooters, invaded Scotland, and ravaged the province of Lenox with fire and sword. They were opposed by John Colquhoun of Luss, whom they slew, some say treacherously, and others, in an engagement at Lochlomond, near Inchmartin. After this, the robbers grew more outrageous than ever, not only filling all the neighbouring country with rapine, but murdering the aged, infants, and the defenceless of both sexes. At last, all the labouring hands in the kingdom being engaged in domestic broils, none were left for agriculture; and a dreadful famine ensued, attended, as usual, by a pestilence. James was now about ten years of age; and the wisest part of the kingdom agreed, that the public distresses were owing to a total disrespect of the royal authority. The young earl of Douglas never had fewer than 1000, and sometimes 2000 horse in his train; so that none was found hardy enough to controul him. He pretended to be independent of the king and his courts of law; that he had a right of judicature upon his own large estates; and that he was entitled to the exercise of royal power. In consequence of this he issued his orders, gave protections to thieves and murderers, affected to brave the king, made knights, and, according to some writers, even noblemen, of his own dependents, with a power of sitting in parliament.

The queen-mother was not wholly guiltless of those abuses. She had fallen in love with and married Sir James Stuart, who was commonly called the *Black knight of Lorn*, brother to the lord of that title, and a descendant of the house of Darnley. Affection for her husband caused her to renew her political intrigues; and not finding a ready compliance in the governor, her interest inclined towards the party of the Douglases. The governor thought to strengthen his authority by restoring the exercise of the civil power, and the reverence due to the person of the sovereign.

326 The queen mother and her husband imprisoned;

The conduct of the lord Callendar was in many respects not so defensible, either as to prudence or policy. When the queen expressed her inclinations that her husband might be admitted to some part of the administration, the governor threw both him and his brother the lord Lorn into prison, on a charge of undutiful practices against the state, and abetting the earl of Douglas in his enormities. The queen, taking fire at her husband's imprisonment, was herself confined in a mean apartment within the castle of Stirling; and a convention of the states was called, to judge in what manner she was to be proceeded against. The case was unprecedented and difficult; nor is it credible that the governor would have carried matters to such extremity, had he not had strong evidence of her illegal behaviour. She was even obliged to dissemble her resentment, by making an open profession before the states, that she had always been entirely innocent of her husband's practices, and that she would for the future behave as a peaceable and dutiful subject to the laws and the sovereign. Upon making this purgation (as Lindsay calls it), she was released, as also her husband and his brother, being bailed by the chancellor and the lord Gordon, who became sureties for their good behaviour in the penalty of 4000 merks. The governor was afterwards accused of many arbitrary and partial acts of power: and indeed, if we consider his situation, and the violence of the parties which then divided Scotland, it was almost impossible, consistently with his own safety, to have exerted the virtues either of patriotism or moderation.

327 But are released.

The chancellor was exceedingly vexed at the small regard which the governor paid to his person and dignity, and secretly connected himself with the queen-mother; but in the mean time he remained at Edinburgh. The king and his mother continued all this time at Stirling; where the governor, on pretence of consulting the public safety, and that of the king's person, maintained a strong guard, part of which attended James in his juvenile exercises and diversions. The queen-mother did not fail to represent this to her son as a restraint on his liberty; and obtained his consent to put himself into the chancellor's hands. The latter, who was a man of activity and courage, knew well how to avail himself of this permission; and crossing the Forth in the dark with a strong body of horse, they surrounded the king as he was hunting next morning by break of day. It was easy to perceive from the behaviour of James, that he was no stranger to the chancellor's attempt; but some of the king's guard offering to dispute the possession of his person, Sir William Livingston, the governor's eldest son, restrained them, and suffered the king to depart quietly. This surprisal happened on a day when the governor was absent from Stirling; and the chancellor, to make sure of his royal acquisition, entered Edinburgh

328 The chancellor gets the king's person into his hands.

Scotland.

burgh at the head of 4000 horse, where the king and he were received by the citizens with loud acclamations of joy.

The governor showed no emotion at what had happened; on the contrary, he invited the chancellor to an interview, and settled all differences with him in an amicable manner. The young lord Douglas, however, continued to brave both parties. As if he had been a sovereign prince, he demanded by his ambassadors, Malcolm Fleming of Cumbernauld, and Allan Lawder, the investiture of the sovereignty of Touraine from Charles the seventh of France; which being readily granted him, served to increase his pride and insolence. The first-fruits of the accommodation between the two great officers of state was the holding of a parliament at Edinburgh, for redressing the public disorders occasioned by the earl of Douglas; and encouragement was given to all persons who had been injured to make their complaints. The numbers which on that occasion resorted to Edinburgh were incredible; parents, children, and women, demanding vengeance for the murder of their relations, or the plunder of their estates; till, by the multiplicity of their complaints, they became without remedy, none being found bold enough to encounter the earl of Douglas, or to endeavour to bring him to a fair trial. The parties therefore were dismissed without relief, and it was resolved to proceed with the haughty earl in a different manner. Letters were written to him by the governor and chancellor, and in the name of the states, requesting him to appear with his friends in parliament, and to take that lead in public affairs to which they were intitled by their high rank and great possessions. The manner in which those letters were penned made the thoughtless earl consider them as a tribute due to his greatness, and as proceeding from the inability of the government to continue the administration of public affairs without his countenance and direction. Without dreaming that any man in Scotland would be so bold as to attack him, even single or unarmed, he answered the letters of the chancellor and governor, by assuring them that he intended to set out for Edinburgh: the chancellor, on pretence of doing him honour, but in reality to quiet his suspicions, met him while he was on his journey; and inviting him to his castle of Crichton, he there entertained him for some days with the greatest magnificence and appearance of hospitality. The earl of Douglas believed all the chancellor's professions of friendship, and even sharply checked the wisest of his followers, who counselled him not to depend too much on appearances, or to trust his brother and himself at the same time in any place where the chancellor had power. The latter had not only removed the earl's suspicion, but had made him a kind of convert to patriotism, by painting to him the miseries of his country, and the glory that must redound to him and his friends in removing them. It was in vain for his attendants to remind him of his father's maxim, never to risk himself and his brother at the same time: he without hesitation attended the chancellor to Edinburgh; and being admitted into the castle, they dined at the same table with the king. Towards the end of the entertainment, a bull's head, the certain prelude of immediate death, was served up. The earl and his brother start-

329 Rebellious behaviour of the earl of Douglas.

ed to their feet, and endeavoured to make their escape: but armed men rushing in, overpowered them, and tying their hands and those of Sir Malcolm Fleming with cords, they were carried to the hill and beheaded. The young king endeavoured with tears to procure their pardon; for which he was severely checked by the unrelenting chancellor.

330 Is put to death with his brother.

In 1443, the king being arrived at the age of 14, declared himself out of the years of minority, and took upon himself the administration of affairs. He appears to have been a prince of great spirit and resolution; and he had occasion for it. He had appointed one Robert Sempil of Fulwood to be chief governor of the castle of Dumbarton; but he was killed by one Galbraith (a noted partisan of the earl of Douglas), who seized upon the government of the castle. The popularity of the family of Douglas having somewhat subsided and the young earl finding himself not supported by the chief branches of his family, he began to think, now that the king was grown up, his safest course would be to return to his duty. He accordingly repaired to the king at Stirling; and voluntarily throwing himself at his majesty's feet, implored pardon for all his transgressions, and solemnly promised that he would ever after set a pattern of duty and loyalty to all the rest of his subjects. The king, finding that he insisted on no terms but that of pardon, and that he had unconditionally put himself into his power, not only granted his request, but made him the partner of his inmost councils.

An. 1443.

331 The young earl submits to the king, and is received into favour.

James had always disliked the murder of the earl of Douglas and his brother: and the chancellor, perceiving the ascendancy which this earl was daily gaining at Court, thought it high time to provide for his own safety. He therefore resigned the great seal, and retired to the castle of Edinburgh, the custody of which he pretended had been granted to him by the late king during his life, or till the present king should arrive at the age of 21; and prepared it for a siege. The lord Callendar who knew himself equally obnoxious as Crichton was to the earl of Douglas, and that he could not maintain his footing by himself, resigned likewise all his posts, and retired to one of his own houses, but kept possession of the castle of Stirling. As both that and the castle of Edinburgh were royal forts, the two lords were summoned to surrender them; but instead of complying, they justified their conduct by the great power of their enemies, who sought their destruction, and who had been so lately at the head of robbers and outlaws; but promised to surrender themselves to the king as soon as he was of lawful age, (meaning, we suppose, either 18 or 21). This answer being deemed contumacious, the chancellor and the late governor, with his two sons Sir Alexander and Sir James Livingston, were proclaimed traitors in a parliament which was summoned on purpose to be held at Stirling. In another parliament held at Perth the same year, an act passed that all the lands and goods which had belonged to the late king should be possessed by the present king to the time of his lawful age, which is not specified. This act was levelled against the late governor and chancellor, who were accused of having alienated to their own uses, or to those of their friends, a great part of the royal effects and jewels; and their estates being

332 Great disturbances in Scotland.

being confiscated, the execution of the sentence was committed to John Forrester of Corstorphin, and other adherents of the earl of Douglas.

This sentence threw all the nation into a flame. The castle of Crichton was besieged; and being surrendered on the king's summons and the display of the royal banner, it was levelled with the ground. It soon appeared that the governor and chancellor, the latter especially, had many friends; and in particular Kennedy archbishop of St Andrew's, nephew to James the First, who sided with them from the dread and hatred they bore to the earl of Douglas and his family. Crichton thus soon found himself at the head of a body of men; and while Forrester was carrying fire and sword into his estates and those of the late governor, his own lands and those of the Douglases were overrun. Corstorphin, Abercorn, Blackness, and other places, were plundered; and Crichton carried off from them more booty than he and his adherents had lost. Particular mention is made of a fine breed of mares which Douglas lost on this occasion. That nobleman was so much exasperated by the great damages he had sustained, that he engaged his friends the earl of Crawford and Alexander Ogilvy of Innerquharity, to lay waste the lands of the archbishop of St Andrew's, whom he considered as the chief support of the two ministers. This prelate was not more considerable by his high birth, than he was venerable by his virtue and sanctity; and had, from a principle of conscience, opposed the earl of Douglas and his party. Being conscious he had done nothing that was illegal, he first admonished the earl of Crawford and his coadjutor to desist from destroying his lands; but finding his admonitions ineffectual, he laid the earl under an excommunication.

That nobleman was almost as formidable in the northern, as the earl of Douglas had been in the southern, parts of Scotland. The Benedictine monks of Aberbrothwic, who were possessed of great property, had chosen Alexander Lindsay, his eldest son, to be the judge or bailiff of their temporalities; as they themselves, by their profession, could not sit in civil or criminal courts. Lindsay proved so chargeable to the monks, by the great number of his attendants, and his high manner of living, that their chapter removed him from his post, and substituted in his place Alexander Ogilvy of Innerquharity, guardian to his nephew John Ogilvy of Airley, who had an hereditary claim on the bailiwick. This, notwithstanding their former intimacy, created an irreconcileable difference between the two families. Each competitor strengthened himself by calling in the assistance of his friends; and the lord Gordon taking part with the Ogilvies, to whom he was then paying a visit, both parties immediately mustered in the neighbourhood of Aberbrothwic. The earl of Crawford, who was then at Dundee, immediately posted to Aberbrothwic, and placing himself between the two armies, he demanded to speak with Ogilvy; but, before his request could be granted, he was killed by a common soldier, who was ignorant of his quality. His death exasperated his friends, who immediately rushed on their enemies; and a bloody conflict ensued, which ended to the advantage of the Lindsays, that is, the earl of Crawford's party. On that of the Ogilvies were killed Sir John Oliphant of Aberdalgy, John Forbes of Pitsligo, Alexander Barclay of Gartley, Robert Maxwel of Teling, Duncan Campbell of Campbelfether, William Gordon of Burrowfield, and others. With those gentlemen, about 500 of their followers are said to have fallen; but some accounts diminish that number. Innerquharity himself, in flying, was taken prisoner, and carried to the earl of Crawford's house at Finhaven, where he died of his wounds; but the lord Gordon (or, as others call him, the earl of Huntly) escaped by the swiftness of his horse.

This battle seems to have let loose the fury of civil discord all over the kingdom. No regard was paid to magistracy, nor to any description of men but that of clergy. The most numerous, fiercest, and best allied family, wreaked its vengeance on its foes, either by force or treachery; and the enmity that actuated the parties, stifled every sentiment of honour, and every feeling of humanity. The Lindsays, secretly abetted and strengthened by the earl of Douglas, made no other use of their victory than carrying fire and sword through the estates of their enemies; and thus all the north of Scotland presented scenes of murder and devastation. In the west, Robert Boyd of Duchal, governor of Dumbarton, treacherously surprised Sir James Stuart of Achmynto, and treated his wife with such inhumanity, that she expired in three days under her confinement in Dumbarton castle. The castle of Dunbar was taken by Patrick Hepburn of Hales. Alexander Dunbar dispossessed the latter of his castle of Hales; but it was retaken by the partisans of the earl of Douglas, whose tenants, particularly those of Annandale, are said to have behaved at that time with peculiar fierceness and cruelty. At last, the gentlemen of the country, who were unconnected with those robbers and murderers, which happened to be the case with many, shut themselves up in their several houses; each of which, in those days, was a petty fortress, which they victualled, and provided in the best manner they could for their own defence. This wise resolution seems to have been the first measure that composed the public commotions.

The earl of Douglas, whose power and influence at court still continued, was sensible that the clergy, with the wiser and more disinterested part of the kingdom, considered him as the source of the dreadful calamities which the nation suffered; and that James himself, when better informed, would be of the same opinion. He therefore sought to avail himself of the juncture, by forming secret but strong connexions with the earls of Crawford, Ross, and other great noblemen, who desired to see their feudal powers restored to their full vigour. The queen-dowager and her husband made little or no figure during this season of public confusion: she had retired to the castle of Dunbar, while it was in Hepburn's possession, where she died soon after. She left by her second husband three sons; John, who in 1455 was made earl of Athol, by his uterine brother the king; James, who under the next reign, in 1469, was created earl of Buchan; and Andrew, who afterwards became bishop of Murray. As the earl of Douglas was an enemy to the queen-dowager's husband, the latter retired to England, where he obtained a pass to go abroad, with 20 in his train; but being taken at sea by the Flemish pirates, he died in confinement.

The great point between the king and Sir William Crichton

Scotland. Crichton, whether the latter should give up the castle to his majesty, remained still undecided; and by the advice and direction of the earl of Douglas, who had been created lord-lieutenant of the kingdom, it had now suffered a nine months siege. Either the strength of the castle, or an opinion entertained by Douglas that Crichton would be a valuable acquisition to his party, procured better terms for the latter than he could otherwise have expected; for he and his followers were offered a full indemnity for all past offences, and a promise was made that he should be restored not only to the king's favour, but to his former post of chancellor. He accepted the conditions; but refused to act in any public capacity till they were confirmed by a parliament, which was soon after held at Perth, and in which he was restored to his estate and honours. By this reconciliation between Douglas and Crichton, the former was left at full liberty to prosecute his vengeance against the Lord Callendar, the late governor, his friends and family. That vengeance was exercised with rigour. The governor himself, Sir James Dundas of Dundas, and Sir Robert Bruce of Clackmannan, were forced to save their lives by the loss of their estates; but even that could not preserve their liberty, for they were sent prisoners to the castle of Dumbarton. The fate of Alexander, the governor's eldest son, and of two other gentlemen of his name and family, was still more lamentable; for they were condemned to lose their heads. These severities being inflicted after the king had in a manner readmitted the sufferers into his favour, swelled the public outcry against the earl of Douglas. We have in Lindsay an extract of the speech which Alexander Livingston, one of the most accomplished gentlemen of his time, made on the scaffold, in which he complained, with great bitterness, of the cruel treatment which his father, himself, and his friends, had undergone; and that he suffered by a packed jury of his enemies.

The king being now about 18 years of age, it was thought proper that a suitable consort should be provided for him; and, after various consultations, Mary, the daughter of Arnold duke of Gueldres, was chosen, at the recommendation of Charles king of France, though the marriage was not completed till some time after. This produced an immediate rupture with England. The earls of Salisbury and Northumberland entered Scotland at the head of two separate bodies. The former burnt the town of Dumfries, as the latter did that of Dunbar; while Sir John Douglas of Balveny made reprisals by plundering the county of Cumberland, and burning Alnwic. On the return of the English armies to their own country, additional levies were made, and a fresh invasion of Scotland was resolved on under the earl of Northumberland, who had with him a lieutenant, whom the Scots of those days, from the bushiness and colour of his beard, called *Magnus with the red mane*. He was a soldier of fortune, but an excellent officer, having been trained in the French wars; and he is said to have demanded no other recompense for his services from the English court, but that he should enjoy all he could conquer in Scotland. The Scots, in the mean time, had raised an army commanded by George Douglas earl of Ormond, and under him by Wallace of Craigie, with the lords Maxwell and Johnston. The English having passed Solway frith, ravaged all that part of the country which belonged to the Scots; but hearing that the earl of Ormond's army was approaching, called in their parties, and fixed their camp on the banks of the river Sark. Their advanced guard was commanded by Magnus; their centre by the earl of Northumberland; and the rear, which was composed of Welsh, by Sir John Pennington, an officer of courage and experience.

333 Invasion of Scotland by the English. An. 1447.

334 The battle of Sark.

The Scots drew up in three divisions likewise. Their right wing was commanded by Wallace, the centre by the earl of Ormond, and their left wing by the lords Maxwell and Johnston. Before the battle began, the earl of Ormond harangued his men, and inspired them with very high resentment against the English, who, he said, had treacherously broken the truce. The signal for battle being given, the Scots under Wallace rushed forward on their enemies: but, as usual, were received by so terrible a discharge from the English archers, that their impetuosity must have been stopped, had not their brave leader Wallace put them in mind, that their forefathers had always been defeated in distant fights by the English, and that they ought to trust to their swords and spears; commanding them at the same time to follow his example. They obeyed, and broke in upon the English commanded by Magnus, with such fury, as soon fixed the fortune of the day on the side of the Scots, their valour being suitably seconded by the other two divisions. The slaughter (which was the more considerable as both parties fought with the utmost animosity) fell chiefly upon the division commanded by Magnus, who was killed, performing the part of a brave officer; and all his body-guard, consisting of picked soldiers, were cut in pieces.

335 The English entirely defeated.

The battle then became general: Sir John Pennington's division, with that under the earl of Northumberland, was likewise routed; and the whole English army, struck by the loss of their champion, fled towards the Solway, where, the river being swelled by the tide, numbers of them were drowned. The loss of the English in slain amounted to at least 3000 men. Among the prisoners were Sir John Pennington, Sir Robert Harrington, and the earl of Northumberland's eldest son the lord Percy, who lost his own liberty in forwarding his father's escape. Of the Scots about 600 were killed; but none of note, excepting the brave Wallace, who died three months after of the wounds he had received in this battle. The booty that was made on this occasion is said to have been greater than any that had fallen to the Scots since the battle of Bannockburn.

336 Rebellion of the earl of Douglas and others.

The remaining history of this turbulent reign consists almost entirely of a relation of the cabals and conspiracies of the great men. The earl of Douglas had entered into a confederacy with the earls of Crawford, Moray, and Ross, and appeared on all occasions with such a train of followers as bade defiance to royal power itself. This insolence was detested by the wiser part of the nation; and one Maclellan, who is called the *Tutor of Bomby*, and was nephew to Sir Patrick Gray, captain of the king's guard, refused to give any attendance on the earl, or to concur in his measures, but remained at home as a quiet subject. This inoffensive behaviour was by the earl considered as treason against himself; and violently seizing on Maclellan's house and person, he sent him close prisoner to the castle of Douglas. As

Maclellan was a gentleman of great worth and reputation, his uncle Gray applied earnestly to James in his favour; and such was that prince's regard for Maclellan, that he wrote and signed a letter for his release, addressed to the earl of Douglas. Upon Gray's delivering this letter to Douglas at his castle, the latter seemed to receive it with the highest respect, and to treat Gray with the greatest hospitality, by inviting him to dinner: but, in the mean time, he gave private orders that Maclellan's head should be struck off, and his body exposed upon the green before the castle covered with a linen cloth. After dinner, the earl told Gray that he was ready to obey the king's commands; and conducting him to the green, he showed him the lifeless trunk, which he said Gray might dispose of as he pleased. Upon this, Gray mounted his horse, and trusted to his swiftness for his own safety; for he was pursued by the earl's attendants to the gates of Edinburgh.

The conspiracy against James's government was now no longer a secret. The lords Balveny and Hamilton, with such a number of other barons and gentlemen, had acceded to it, that it was thought to be more powerful than all the force the king could bring into the field. Even Crichton advised James to dissemble. The confederates entered into a solemn bond and oath never to desert one another during life; and, to make use of Drummond's words, "That injuries done to any one of them should be done to them all, and be a common quarrel; neither should they desist, to their best abilities, to revenge them: that they should concur indifferently against whatsoever persons within or without the realm, and spend their lives, lands, goods, and fortunes, in defence of their debates and differences whatsoever." All who did not enter into this association were treated as enemies to the public; their lands were destroyed, their effects plundered, and they themselves imprisoned or murdered. Drummond says, that Douglas was then able to bring 40,000 men into the field; and that his intention was to have placed the crown of Scotland on his own head. How far he might have been influenced by a scene of the same nature that was then passing between the houses of York and Lancaster in England, we shall not pretend to determine; though it does not appear that his intention was to wear the crown himself, but to render it despicable on his sovereign's head. It is evident, from his behaviour, that he did not affect royalty; for when James invited him to a conference in the castle of Stirling, he offered to comply provided he had a safe-conduct. This condition plainly implied, that he had no reliance on the late act of parliament, which declared the proclamation of the king's peace to be a sufficient security for life and fortune to all his subjects; and there is no denying that the safe-conduct was expedited in the form and manner required.

357 Interview between King James and the earl of Douglas.

This being obtained, the earl began his march towards Stirling with his usual great retinue; and arrived there on Shrove-Tuesday. He was received by the king as if he had been the best of his friends, as well as the greatest of his subjects, and admitted to sup with his majesty in the castle, while his attendants were dispersed in the town, little suspecting the catastrophe that followed. The entertainment being over, the king told the earl with an air of frankness, "That as he was now of age, he was resolved to be the father of all his people, and to take the government into his own hands; that his lordship, therefore, had no reason to be under any apprehensions from his old enemies Callendar and Crichton; that there was no occasion to form any confederacies, as the law was ready to protect him; and that he was welcome to the principal direction of affairs under the crown, and to the first place in the royal confidence; nay, that all former offences done by himself and his friends should be pardoned and forgotten."

This speech was the very reverse of what the earl of Douglas aimed at. It rendered him, indeed, the first subject of the kingdom; but still he was controulable by the civil law. In short, on the king's peremptorily putting the question to him, he not only refused to dissolve the confederacy, but upraided the king for his government. This produced a passionate rejoinder on the part of James; but the earl represented that he was under a safe-conduct, and that the nature of his confederacy was such, that it could not be broken but by the common consent of all concerned. The king insisted on his setting the example; and the earl continuing more and more obstinate, James stabbed him with his dagger; and armed men rushing into the room, finished the atrocious deed.

358 The king kills him with his own hand.

After the death of the earl of Douglas, the confederacy came to nothing. The insurgents excused themselves as being too weak for such an enterprise; and were contented with trailing the safe-conduct at a horse's tail, and proclaiming, by trumpets and horns, the king a perjured traitor. They proceeded no farther; and each departed to his own habitation, after agreeing to assemble with fresh forces about the beginning of April. James lost no time in improving this short respite; and found the nation in general much better disposed in his favour than he had reason to expect. The intolerable oppressions of the great barons made his subjects esteem the civil, far preferable to the feudal, subjection: and even the Douglasses were divided among themselves: for the earl of Angus and Sir John Douglas of Dalkeith were among the most forward of the royalists. James at the same time wrote letters to the earl of Huntly, and to all the noblemen of his kingdom who were not parties in the confederacy, besides the ecclesiastics, who remained firmly attached to his prerogative. Before the effect of those letters could be known, the insurgents had returned to Stirling (where James still wisely kept himself on the defensive); repeated their insolences, and the opprobrious treatment of his safe-conduct; and at last they plundered the town, and laid it in ashes. Being still unable to take the castle, partly through their own divisions, and partly through the diversity of the operations they were obliged to carry on, they left Stirling, and destroyed the estate of Sir John Douglas of Dalkeith, whom they considered as a double traitor, because he was a Douglas and a good subject. They then besieged his castle; but it was so bravely defended by Patrick Cockburn, a gentleman of the family of Langton, that they raised the siege; which gave the royal party farther leisure for humbling them.

All this time the unhappy country was suffering the most cruel devastations; for matters were now come to such extremity, that it was necessary for every man to be

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a royalist or a rebel. The king was obliged to keep on the defensive; and though he had ventured to leave the castle of Stirling, he was in no condition to face the rebels in the field. They were in possession of all the strong passes by which his friends were to march to his assistance; and he even consulted with his attendants on the means of escaping to France, where he was sure of an hospitable reception. He was diverted from that resolution by Archbishop Kennedy and the earl of Angus, who was himself a Douglas, and prevailed on to wait for the event of the earl of Huntly's attempts for his service. This nobleman, who was descended from the Seatons, but by marriage inherited the great estates of the Gordons in the north, had raised an army for James, to whose family he and his ancestors, by the Gordons as well as the Seatons, had been always remarkably devoted. James was not mistaken in the high opinion he had of Huntly; and in the mean time he issued circular letters to the chief ecclesiastics and bodies-politic of his kingdom, setting forth the necessity he was under of proceeding as he had done, and his readiness to protect all his loyal subjects in their rights and privileges against the power of the Douglases and their rebellious adherents. Before these letters could have any effect, the rebels had plundered the defenceless houses and estates of all who were not in their confederacy, and had proceeded with a fury that turned to the prejudice of their cause.

The indignation which the public had conceived against the king, for the violation of his safe-conduct, began now to subside; and the behaviour of his enemies in some measure justified what had happened, or at least made the people suspect that James would not have proceeded as he did without the strongest provocation. The forces he had assembled being unable, as yet, to act offensively, he resolved to wait for the earl of Huntly, who by this time was at the head of a considerable army, and had begun his march southwards. He had been joined by the Forbeses, Ogilvies, Leslies, Grants, Irvings, and other relations and dependants of his family; but having advanced as far as Brechin, he was opposed by the earl of Crawford, the chief ally of the earl of Douglas, who commanded the people of Angus, and all the adherents of the rebels in the neighbouring counties, headed by foreign officers. The two armies joining battle on the 18th of May, victory was for some time in suspense; till one Colosa of Bonnymoon, on whom Crawford had great dependence, but whom he had imprudently disobliged, came over to the royalists with the division he commanded, which was the strongest part of Crawford's army, armed with battle-axes, broadswords, and long spears. His defection gave the fortune of the day to the earl of Huntly, as it left the centre flank of Crawford's army entirely exposed to the royalists. He himself lost one of his brothers; and fled with another, Sir John Lindsay, to his house at Finhaven, where it is reported that he broke out into the following ejaculation: "That he would be content to remain seven years in hell, to have in so timely a season done the king his master that service the earl of Huntly had performed, and carry that applause and thanks he was to receive from him."

339 Battle of Brechin, where the rebels are defeated.

No author informs us of the loss of men on either side, though all agree that it was very considerable on the whole. The earl of Huntly, particularly, lost two brothers, William and Henry; and we are told, that, to indemnify him for his good services, as well as for the rewards and presents which he had made in lands and privileges to his faithful followers, the king bestowed on him the lands of Badenoch and Lochaber.

340 The rebellion suppressed.

The battle of Brechin was not immediately decisive in favour of the king, but proved so in its consequences. The earl of Moray, a Douglas likewise, took advantage of Huntly's absence to harass and ravage the estates of all the royalists in the north; but Huntly returning from Brechin with his victorious army, drove his enemy into his own county of Moray, and afterwards expelled him even from thence. James was now encouraged, by the advice of his kinsman Kennedy archbishop of St Andrew's, to whose firmness and prudence he was under great obligations, to proceed against the rebels in a legal manner, by holding a parliament at Edinburgh, to which the confederated lords were summoned; and upon their non-appearance, they were solemnly declared traitors. This proceeding seemed to make the rebellion rage more fiercely than ever; and at last, the confederates, in fact, disowned their allegiance to James. The earls of Douglas, Crawford, Ormond, Moray, the lord Balveny, Sir James Hamilton, and others, signed with their own hands public manifestoes, which were pasted on the doors of the principal churches, importing, "That they were resolved never to obey command or charge, nor answer citation for the time coming; because the king, so far from being a just master, was a bloodsucker, a murderer, a transgressor of hospitality, and a surpriser of the innocent." It does not appear that these atrocious proceedings did any service to the cause of the confederates. The earl of Huntly continued victorious in the north; where he and his followers, in revenge for the earl of Moray's having burnt his castle of Huntly, seized or ravaged all that nobleman's great estate north of the Spey. When he came to the town of Forres, he burned one side of the town, because it belonged to the earl, and spared the other, because it was the property of his own friends. James thought himself, from the behaviour of the earl of Douglas and his adherents, now warranted to come to extremities; and marching into Annandale, he carried fire and sword through all the estates of the Douglases there. The earl of Crawford, on the other hand, having now recruited his strength, destroyed the lands of all the people of Angus, and of all others who had abandoned him at the battle of Brechin; though there is reason to believe, that he had already secretly resolved to throw himself upon the king's mercy.

341 New association against the king by the earls of Douglas, Crawford, &c.

Nothing but the most obstinate pride and resentment could have prevented the earl of Douglas, at this time, from taking the advice of his friends, by returning to his duty; in which case, James had given sufficient intimations that he might expect pardon. He coloured his contumacy with the specious pretext, that his brother's fate, and those of his two kinsmen, sufficiently instructed him never to trust to James or his ministers; that he had gone too far to think now of receding; and that kings, when once offended, as James had been, never pardoned in good earnest. Such were the chief reasons, with others of less consequence, which Drummond has put into the mouth of Douglas at this time. James, after his expedition into Annandale, found the

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season too far advanced to continue his operations; and returning to Edinburgh, he marched northwards to Angus, to reduce the earl of Crawford, who was the second rebel of power in the kingdom. That nobleman had hitherto deferred throwing himself at the king's feet, and had resumed his arms, in the manner related, only in hopes that better terms might be obtained from James for himself and his party. Perceiving that the earl of Douglas's obstinacy had cooled some other lords of the confederacy, and had put an end to all hopes of a treaty, he resolved to make a merit of breaking the confederacy, by being the first to submit. James having arrived in Angus, was continuing his march through the country, when the earl and some of his chief followers fell on their knees before him on the road, bareheaded and barefooted. Their dreary looks, their suppliant postures, and the tears which streamed abundantly from the earl, were expressive of the most abject contrition, which was followed by a penitential speech made by the earl, acknowledging his crimes, and imploring forgiveness.

342 Broken by the earl of Crawford,

James was then attended by his chief counsellors, particularly Archbishop Kennedy, who, he resolved, should have some share in the favour he meant to extend to the earl. He asked their advice; which proving to be on the merciful side, James promised to the earl and his followers the restitution of all their estates and honours, and full pardon for all that had passed. The earl, as a grateful return for this favour, before the king left Angus, joined him with a noble troop of his friends and followers; and attending him to the north, was extremely active in suppressing all the remains of the rebellion there.

343 who is received into favour.

The submission of the earl of Crawford was followed by that of the earl of Douglas; which, however, continued only for a short time. This powerful nobleman soon resumed his rebellious practices; and, in the year 1454, raised an army to fight against the king. The king erected his standard at St Andrew's; marched from thence to Falkland; and ordered all the forces of Fife, Angus, and Strathern, with those of the northern parts, to rendezvous by a certain day at Stirling; which they did to the number of 30,000. Douglas assembled his forces, which amounted to 40,000, some say 60,000 men, on the south side of the river Carron, about half way between Stirling and Abercorn. Notwithstanding this superiority of force, however, the earl did not think it proper to fight his sovereign. Archbishop Kennedy, the prelate of St Andrew's, had advised the king to divide his enemies by offering them pardon separately; and so good an effect had this, that in a few days the earl found himself deserted by all his numerous army, except about 100 of his nearest friends and domestics, with whom he retired towards England. His friends had indeed advised him to come to a battle immediately; but the earl, for reasons now unknown, refused. In his journey southward, however, he raised a considerable body of forces, consisting of his own tenants, of outlaws, robbers, and borderers, with whom he renewed his depredations on the loyal subjects of the king. He was opposed by the earl of Angus, who, though of the name of Douglas, continued firm in the royal cause. An engagement ensued at Ancrum muir; where Douglas was entirely defeated, and he himself with great difficulty escaped to an adjacent wood. What his fate was after this battle does not appear; but it is certain that his estates were afterwards forfeited to the king.

344 Earl Douglas submits, but rebels again. An. 1454.

345 He is entirely defeated.

The rest of the reign of James II. was spent in making proper regulations for the good of his people. In 1460, he was killed at the siege of Roxburgh castle, by the bursting of a cannon, to which he was too near when it was discharged. This siege he had undertaken in favour of Margaret queen of England, who, after losing several battles, and being reduced to distress, was obliged to apply to James for relief. The nobility who were present concealed his death, for fear of discouraging the soldiers; and, in a few hours after, his queen appeared in the camp, and presented her son, James III. as their king.

346 K. James II. killed by accident An. 1460.

James III. was not quite seven years of age at his accession to the crown. The administration naturally devolved on his mother; who pushed the siege of Roxburgh castle with so much vigour, that the garrison was obliged to capitulate in a few days; after which the army ravaged the country, and took and dismantled the castle of Wark.—In 1466, negociations were begun for a marriage between the young king and Margaret princess of Denmark; and, in 1468, the following conditions were stipulated. 1. That the annual rent hitherto paid for the northern isles of Orkney and Shetland should be for ever remitted and extinguished. 2. That King Christiern, then king of Denmark, should give 60,000 florins of gold for his daughter's portion, whereof 10,000 should be paid before her departure from Denmark; and that the islands of Orkney should be made over to the crown of Scotland, by way of pledge for the remainder; with this express proviso, that they should return to that of Norway after complete payment of the whole sum. 3. That King James should, in case of his dying before the said Margaret his spouse, leave her in possession of the palace of Linlithgow and castle of Down in Menteith, with all their appurtenances, and the third part of the ordinary revenues of the crown, to be enjoyed by her during life, in case she should choose to reside in Scotland. 4. But if she rather chose to return to Denmark, that in lieu of the said liferent, palace, and castle, she should accept of 120,000 florins of the Rhine; from which sum the 50,000 due for the remainder of her portion being deduced and allowed, the islands of Orkney should be reannexed to the crown of Norway as before.

347 James III.

348 Marriage-treaty with the princess of Denmark. An. 1468.

When these articles were agreed on, Christiern found himself unable to fulfil his part of them. Being at that time engaged in an unsuccessful war with Sweden, he could not advance the 10,000 florins which he had promised to pay down as part of his daughter's fortune. He was therefore obliged to apply to the plenipotentiaries to accept of 2000, and to take a farther mortgage of the isles of Shetland for the other 8000. The Scottish plenipotentiaries, of whom Boyd earl of Arran was one, gratified him in his request; and this concession is thought to have proved fatal to the earl. Certain it is, that his father was beheaded for treasonable practices alleged to have been committed long before, and for which he in vain produced a parliamentary indemnity: the earl himself was divorced from his wife the king's sister, and obliged to live in perpetual exile, while the countess was married to another.

349 Disgrace of the earl of Arran's family.

In

350 Beginning of James's misfortunes. An. 1476.

In 1476, those misfortunes began to come on James which afterwards terminated in his ruin. He had made his brother, the duke of Albany, governor of Berwick; and had entrusted him with very extensive powers on the borders, where a violent propensity for the feudal law still continued. The Humes and the Hepburns, then the most powerful subjects in those parts, could not brook the duke of Albany's greatness, especially after he had forced them, by virtue of a late act, to part with some of the estates which had been inconsiderately granted them in this and the preceding reign. The pretended science of judicial astrology, by which James happened to be incredibly infatuated, was the easiest as well as most effectual engine that could aid their purposes. One Andrew, an infamous impostor in that art, had been brought over from Flanders by James; and he and Schevez, the archbishop of St Andrew's, concurred in persuading James that the Scotch lion was to be devoured by his own whelps; a prediction that, to a prince of James's turn, amounted to a certainty.

351 Is infatuated with the belief of astrology.

The condition to which James reduced himself by his belief in judicial astrology, was truly deplorable. The princes on the continent were smitten with the same infatuation; and the wretches who besieged his person had no safety but by continuing the delusion in his mind. According to Lindsay, Cochran, who had some knowledge of architecture, and had been introduced to James as a master-mason, privately procured an old woman who pretended to be a witch, and who heightened his terrors by declaring that his brother intended to murder him. James believed her; and the unguarded manner in which the earl of Mar treated his weakness, exasperated him so much, that the earl giving a farther loose to his tongue in railing against his brother's unworthy favourites, was arrested, and committed to the castle of Craigmillar; from which he was brought to the Canongate, a suburb of Edinburgh, where he suffered death.

352 Death of the king's brother the earl of Mar.

353 Duke of Albany arrested, but escapes.

The duke of Albany was at the castle of Dunbar when his brother the earl of Mar's tragedy was acted; and James could not be easy without having him likewise in his power. In hope of surprising him, he marched to Dunbar: but the duke, being apprised of his coming, fled to Berwick, and ordered his castle of Dunbar to be surendered to the lord Evendale, though not before the garrison had provided themselves with boats and small vessels, in which they escaped to England. He ventured to come to Edinburgh; where James was so well served with spies, that he was seized and committed close prisoner to the castle, with orders that he should speak with none but in the presence of his keepers. The duke had probably suspected and provided against this disagreeable event; for we are told that he had agents, who every day repaired to the castle, as if they had come from court, and reported the state of matters between him and the king, while his keepers were present, in so favourable a light, that they made no doubt of his soon regaining his liberty, and being readmitted to his brother's favour. The seeming negociation, at last, went on so prosperously, that the duke gave his keepers a kind of a farewell entertainment, previous to his obtaining a formal deliverance; and they drank so immoderately, that being intoxicated, they gave him an opportunity of escaping over the castle wall, by converting the sheets of his bed into a rope. Whoever knows the situation of that fortress, must be amazed at the boldness of this attempt; and we are told that the duke's valet, the only domestic whom he was allowed, making the experiment before his master, broke his neck: on which the duke, lengthening the rope, slid down unhurt: and carrying his servant on his back to a place of safety, he went on board a ship which his friends had provided, and escaped to France.

An. 1482.

In 1482, the king began to feel the bad consequences of taking into his favour men of worthless characters, which seems to have been one of this prince's chief foibles. His great favourite at this time was Cochran, whom he had raised to the dignity of earl of Mar. All historians agree that this man made a most infamous use of his power. He obtained at last a liberty of coinage, which he abused so much as to endanger an insurrection among the poor people: for he issued a base coin, called *black money* by the common people, which they refused to take in payments. This favourite's skill in architecture had first introduced him to James; but he maintained his power by other arts: for knowing that his master's predominant passion was the love of money, he procured it by the meanest and most oppressive methods. James, however, was inclined to have relieved his people by calling in Cochran's money; but he was diverted from that resolution, by considering that it would be agreeable to his old nobility. Besides Cochran, James had other favourites whose professions rendered them still less worthy of the royal countenance; James Hommil a taylor, Leonard a blacksmith, Torfifan a dancing master, and some others. The favour shown to these men gave so much offence to the nobility, that after some deliberation, they resolved to remove the king, with some of his least exceptionable domestics (but without offering any violence to his person) to the castle of Edinburgh: but to hang all his worthless favourites over Lawder-bridge, then the common place of execution. Their deliberation was not kept so secret but that it reached the ears of the favourites; who, suspecting the worst, awakened James before day-break and informed him of the meeting. He ordered Cochran to repair to it, and to bring him an account of its proceedings. (L) According to Lindsay,

354 Cochran, the king's great favourite.

(L) Lindsay's description of this upstart's magnificence is very particular, and may serve to give the reader an idea of the finery of that age. "Cochran (says he), the earl of Mar, came from the king to the council (which council was holden in the kirk of Lawder for the time), who was well accompanied with a band of men of war to the number of 300 light axes, all clad in white livery, and black bends thereon, that they might be known for Cochran the earl of Mar's men. Himself was clad in a riding-pie of black velvet, with a great chain of gold about his neck, to the value of 500 crowns; and four blowing horns, with both the ends of gold and silk, set with precious stones. His horn was tipped with fine gold at every end, and a precious stone, called a *beryl*, hanging in

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355 He is seized and put to death,

say, who seems to have had very minute information as to this event, Cochran rudely knocked at the door of the church, just after the assembly had finished their consultation; and upon Sir Robert Douglas of Lochleven (who was appointed to watch the door) informing them that the earl of Mar demanded admittance, the earl of Angus ordered the door to be thrown open; and rushing upon Cochran, he pulled a massy gold chain from his neck, saying, that a rope would become him better; while Sir Robert Douglas stripped him of a costly blowing horn he wore by his side, as was the manner of the times, telling him he had been too long the hunter of mischief. Cochran, with astonishment, asked them whether they were in jest or earnest; but they soon convinced him they were in earnest, by pinioning down his arms with a common halter, till he should be carried to execution.

356 with others of the king's favourites.

The earl of Angus, with some of the chief lords, attended by a detachment of troops, then repaired to the king's tent, where they seized his other favourites, Thomas Preston, Sir William Rogers, James Hommil, William Torfifan, and Leonard: and upbraided James himself, in very rude terms, with his misconduct in government, and even in private life, in not only being counselled by the above minions, but for keeping company with a lady who was called the *Daisy*. We know of no resistance made by James. He only interceded for the safety of a young gentleman, one John Ramsay of Balmain. Cochran, with his other worthless favourites, were hanged over Lawder-bridge before his eyes; and he himself was conducted, under an easy restraint, to the castle of Edinburgh.

357 James confined in the castle of Edinburgh.

James, though confined, behaved with great spirit; and even refused to pardon those who had confined him, or who had any hand in the execution at Lawder.

358 Relieved by the duke of Albany.

At last, however, he was relieved by the duke of Albany, who, at the queen's desire, undertook to deliver her husband from confinement. This he accomplished, as some say, by surprising the castle of Edinburgh; though, according to others, the gates were opened, on a formal requisition made for that purpose by two heralds at arms. After he had obtained his liberty, the king repaired to the abbey of Holyroodhouse with his brother, who now acted as his first minister. All the lords who were near the capital came to pay him their compliments; but James was so much exasperated at what had happened, that he committed 16 of them prisoners to the castle of Edinburgh. After his release, James granted a patent to the citizens of Edinburgh, and enlarged their privileges.

359 Secret negociations with Henry VII of England.

In 1487, James finished some secret negociations in which he had been for some time engaged with Henry VII. king of England. The principal articles agreed on between the two monarchs were, That king James's second son should marry Catherine the third daughter of Edward IV. and sister to the princess Elizabeth, now queen of England; and that James himself, who was now a widower, should marry queen Elizabeth. A third marriage was also to be concluded between the duke of Rothesay and another daughter of Edward IV. That in order to these treaties, and for ending all controversies concerning the town of Berwick, which the king of Scotland desired so much to possess, a congress should be held the ensuing year.

360 A powerful confederacy formed against the king,

But in the mean time, a most powerful confederacy was formed against the king; the origin of which was as follows: James was a great patron of architecture; and being pleased with the situation of Stirling castle, he resolved to give it all the embellishments which that art could bestow; and about this time he made it the chief place of his residence. He raised within it a hall, which at that time was deemed a noble structure; and a college which he called the chapel-royal. This college was endowed with an archdean who was a bishop, a subdean, a treasurer, a chanter and subchanter, with a double set of other officers usually belonging to such institutions. The expenses necessary for maintaining these were considerable, and the king had resolved to assign the revenues of the rich priory of Coldingham to that purpose. This priory had been generally held by one of the name of Hume; and that family, through length of time, considered it as their property: they therefore strongly opposed the king's intention. The dispute seems to have lasted for some years; for the former parliament had passed a vote, annexing the priory to the king's chapel-royal; and the parliament of this year had passed a statute, strictly forbidding all persons, spiritual and temporal, to attempt any thing, directly or indirectly, contrary or prejudicial to the said union and annexation. The Humes resented their being stripped of so gainful a revenue, the loss of which affected most of the gentlemen of that name; and they united themselves with the Hepburns, another powerful clan in that neighbourhood, under the lord Hales. An association was soon formed; by which both families engaged to stand by each other, and not to suffer any prior to be received for Coldingham, if he was not of one of their surnames. The lords Gray and Drummond soon joined the association; as did many other noblemen and gentlemen, who had their particular causes of discontent. Their agents gave out, that the king was grasping at arbitrary power; that he had acquired his popularity by deep hypocrisy; and that he was resolved to be signally revenged on all who had any hand in the execution at Lawder. The earl of Angus, who was the soul of the confederacy, advised the conspirators to apply to the old earl of Douglas to head them: but that nobleman was now dead to all ambition, and instead of encouraging the conspirators, he pathetically exhorted them to break off all their rebellious connexions, and return to their duty; expressing the most sincere contrition for his own past conduct. Finding he could not prevail with him, he wrote to all the numerous friends and descendants of his family and particularly to Douglas of Cavers, sheriff of Teviotdale, dissuading them from entiring into the conspiracy; and some of his original letters to that effect are said to be still extant. That great man survived this application but a short time;

361 owing to a quarrel with the family of Hume.

in the midst. This Cochran had his heumont borne before him, overgilt with gold; so were all the rest of his horns; and all his pallions (pavilions or tents) were of fine canvas of silk, and the cords thereof fine twined silk; and the chains upon his pallions were double overgilt with gold."

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362 Extinction of the principal branch of the family of Douglas. An. 1448.

time; for he died without issue at Lindores, on the 15th of April 1488; and in him ended the first branch of that noble and illustrious house. He was remarkable for being the most learned of all the Scots nobility, and for the comeliness of his person.

James appears to have been no stranger to the proceedings of the conspirators; but though he dreaded them, he depended on the protection of the law, as they did on his pusillanimity. His degeneracy in this respect is remarkable. Descended from a race of heroes, he was the first of his family who had been branded with cowardice. But his conduct at this time fully justifies the charge. Instead of vigorously supporting the execution of the laws in his own person, he shut himself up in his beloved castle of Stirling, and raised a body guard; the command of which he gave to the lord Bothwel, master of his household. He likewise issued a proclamation, forbidding any person in arms to approach the court; and Bothwel had a warrant to see the same put in execution. Though the king's proceedings in all this were perfectly agreeable to law, yet they were given out by his enemies as so many indications of his aversion to the nobility, and served only to induce them to parade, armed, about the country in more numerous bodies.

363 Pusillanimous behaviour of James.

The connexions entered into by James with Henry VII. of England, alarmed the conspirators, and made them resolve to strike the great blow, before James could avail himself of an alliance that seemed to place him above all opposition either abroad or at home. The acquisition of Berwick to the crown of Scotland, which was looked on to be as good as concluded; the marriage of the duke of Rothesay with the daughter of the dowager and sister to the consort queen of England; and, above all, the strict harmony which reigned between James and the states of his kingdom, rendered the conspirators in a manner desperate. Besides the earl of Angus, the earls of Argyle and Lenox favoured the conspirators. When the whole of James's convention with England is considered, and compared with after-events, nothing can be more plain, than that the success of the conspirators was owing to his English connexions; and that they made use of them to affirm, that Scotland was soon to become a province of England, and that James intended to govern his subjects by an English force.—Those specious allegations did the conspirators great service, and inclined many, even of the moderate party, to their cause. They soon took the field, appointed their rendezvouses, and all the south of Scotland was in arms. James continued to rely on the authority of his parliament; and summoned, in the terms of law, the insurgents to answer at the proper tribunals for their repeated breaches of the peace. The conspirators, far from paying any regard to his citations, tore them in pieces, buffeted and otherwise maltreated the messengers, and set the laws of their country at open defiance. Even north of the Forth the heads of the houses of Gray and Drummond spread the spirit of disaffection through the populous counties of Fife and Angus; but the counties north of the Grampians continued firm in their duty.

364 Is set at defiance by the conspirators.

The duke of Rothesay was then a promising youth about fifteen years of age; and the subjecting the kingdom of Scotland to that of England being the chief, if not the only, cause urged by the rebels for their appearing in arms they naturally threw their eyes upon that prince, as his appearance at their head would give strength and vigour to their cause; and in this they were not deceived. James, in the mean time, finding the inhabitants of the southern provinces either were engaged in the rebellion, or at best observed a cold neutrality, embarked on board a vessel which was then lying in the frith of Forth, and passed to the north of that river, not finding it safe to go by land to Stirling. Arriving at the castle, he gave orders that the duke of Rothesay (as if foreseeing what afterwards happened) should be put under the care of one Schaw of Sauchie, whom he had made its governor, charging him not to suffer the prince on any account to depart out of the fort. The rebels giving out that James had fled to Flanders, plundered his equipages and baggage before they passed the Forth; and they there found a large sum of money, which proved to be of the utmost consequence to their affairs. They then surprised the castle of Dunbar, and plundered the houses of every man to the south of the Forth whom they suspected to be a royalist.

365 The duke of Rothesay put into confinement.

366 Success of the rebels.

James was all this time making a progress, and holding courts of justice, in the north, where the great families were entirely devoted to his service, particularly the earls of Huntly, Errol, and Marshal.—Every day brought him fresh alarms from the south, which left him no farther room either for delay or deliberation. The conspirators, notwithstanding the promising appearance of their affairs, found, that in a short time their cause must languish, and their numbers dwindle, unless they were furnished with fresh pretexts, and headed by a person of the greatest authority. While they were deliberating who that person should be, the earl of of Angus boldy proposed the duke of Rothesay; and an immediate application was made to Schaw, the young prince's governor, who secretly favoured their cause, and was prevailed on by a considerable sum of money to put the prince into their hands, and to declare for the rebels.

367 They are headed by the duke of Rothesay.

James having ordered all the force in the north to assemble, hurried to Perth (then called St John's town), where he appointed the rendezvous of his army, which amounted to 30,000 men. Among the other noblemen who attended him was the famous lord David Lindsay of the Byres (an officer of great courage and experience, having long served in foreign countries), who headed 3000 foot and 1000 horse, raised chiefly in Fifeshire. Upon his approaching the king's person, he presented him with a horse of remarkable spirit and beauty, and informed his majesty, that he might trust his life to his agility and sure-footedness. The lord Ruthven, who was sheriff of Strathern, and ancestor (if we mistake not) to the unfortunate earls of Gowrie, joined James at the head of 3000 well armed men.—The whole army being assembled, James proceeded to Stirling; but he was astonished, when he was not only denied entrance into the castle, but saw the guns pointed against his person, and understood, for the first time, that his son was at the head of the rebels. Schaw pretended that the duke of Rothesay had been carried off against his will: but the kings answer was, "Fye, traitor, thou hast deceived me; and if I live I shall be revenged on thee, and thou shalt be rewarded as thou hast deserved." James lay that night in the town of Stirling;

368 James assembles his army.

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Stirling, where he was joined by all his army; and understanding that the rebels were advancing, he formed his line of battle. The earl of Athol his uncle, who was trusted by both parties, proposed an accommodation; which was accordingly effected, if we are to believe Abercromby and other historians; but we know not the terms, for none are mentioned on either side.—James is said to have failed on his part; but had there been any grounds for such a charge against him, there can scarcely be a doubt that the rebels would have published them. That a treaty was entered into is past dispute; and the earl of Athol surrendered himself as a hostage into the hands of the rebels.

James was sensible of the advantage which public clamour gave to his enemies; and he applied to the kings of France and England, and the pope, for their interposition. His holiness named Adrian de Castello for his nuncio on that occasion; and the two kings threatened to raise troops for the service of James.—He, by a fatality not uncommon to weak princes, left the strong castle of Edinburgh, where he might have been in safety, till his friends, who had dispersed themselves upon the faith of the late negociation, could be reassembled; and crossing the Forth, he made another attempt to be admitted into the castle of Stirling; but was disappointed, and informed that the rebels were at Torwood in the neighbourhood, and ready to give him battle. He was in possession of the castle of Blackness; his admiral, Wood, commanded the Forth; and his loyal subjects in the north were upon their march to join him. Hawthornden says, that the rebels had made a show of dismissing their troops, that they might draw James into the field; and that while he remained at Blackness, he was attended by the earls of Montrose, Glencairn, and the lords Maxwell and Ruthven. To give his northern troops time to join him, he proposed a negociation; but that was soon at an end, on the rebels peremptorily requiring him to resign his crown to his son, or rather to themselves.

369 Is required by the rebels to resign his crown.

The rebels had been inured to war. They consisted chiefly of borderers, well armed and disciplined; in which they had the advantage of the king's Lowland subjects, who had not been accustomed to arms. What the numbers on both sides were does not clearly appear; but it is probable that the forces of James were superior to the rebels. They were then at Falkirk; but they soon passed the Carron, encamped above the bridge near Torwood, and made such dispositions as rendered a battle unavoidable, unless James would have dispersed his army, and gone on board Wood's ships: but he did not know himself, and resolved on a battle. He was encamped at a small brook named Sauchie-burn, near the same spot of ground where the great Bruce had defeated the English under Edward the Second. The earl of Menteith, the lords Erskine, Graham, Ruthven, and Maxwell, commanded the first line of the king's army. The second was commanded by the earl of Glencairn, who was at the head of the Westland and Highland men. The earl of Crawford, with the lord Boyd and Lindsay of Byres, commanded the rear, wherein the king's main strength consisted, and where he himself appeared in person, completely armed, and mounted upon the fine horse which had been presented to him by Lindsay.

370 Comes to a battle with them.

The first line of the royalists obliged that of the rebels to give way; but the latter being supported by the Annandale men and borderers, the first and second line of the king's army were beat back to the third. The little courage James possessed had forsaken him at the first onset; and he had put spurs to his horse, intending to gain the banks of the Forth, and to go on board one of Wood's ships. In passing through the village of Bannockburn, a woman who was filling her pitcher at the brook, frightened at the sight of a man in armour galloping full speed left it behind her; and the horse taking fright, the king was thrown to the ground, and carried, bruised and maimed, by a miller and his wife, into their hovel. He immediately called for a priest to make his confession; and the rustics demanding his name and rank, "I was (said he incautiously) your king this morning." The woman, overcome with astonishment, clapped her hands, and running to the door called for a priest to confess the king. "I am a priest (said one passing by), lead me to his majesty." Being introduced into the hovel, he saw the king covered with a coarse cloth; and kneeling by him, he asked James whether he thought he could recover, if properly attended by physicians? James answering in the affirmative, the villain pulled out a dagger, and stabbed him to the heart. Such is the dark account we are able to give of this prince's unhappy end. The name of the person who murdered him is said to have been Sir Andrew Borthwick, a priest, one of the pope's knights. Some pretend that the lord Gray, and others that Robert Stirling of Keir, was the regicide; and even Buchanan (the tenor of whose history is a justification of this murder), is uncertain as to the name of the person who gave him the fatal blow.

371 Abandons his army and flies.

372 Is thrown from his horse, and murdered. 11th June An. 1488.

It is probable that the royalists lost the battle through the cowardice of James. Even after his flight his troops fought bravely; but they were damped on receiving the certain accounts of his death. The prince, young as he was, had an idea of the unnatural part he was acting, and before the battle he had given a strict charge for the safety of his father's person. Upon hearing that he had retired from the field, he sent orders that none should pursue him; but they were ineffectual, the rebels being sensible that they could have no safety but in the king's death. When that was certified, hostilities seemed to cease; nor were the royalists pursued. The number of slain on both sides is uncertain; but it must have been considerable, as the earl of Glencairn, the lords Sempil, Erskine, and Ruthven, and other gentlemen of great eminence, are mentioned. As to the duke of Rothesay, who was now king, he appeared inconsolable when he heard of his father's death; but the rebels endeavoured to efface his grief, by the profusion of honours they paid him when he was recognised as king.

373 Grief of his son for his death.

The remorse and anguish of the young king, on reflecting upon the unnatural part which he had acted, was inexpressible; and the noblemen who had been engaged in the rebellion became apprehensive for their own safety. The catastrophe of the unfortunate James III., however, was not yet become public; and it was thought by many that he had gone aboard one of the ships belonging to the Scottish admiral Sir Andrew Wood. James, willing to indulge hope as long as it was possible, desired an interview with the admiral; but the latter refused to come on shore, unless he had

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374 Noble behaviour of Sir Andrew Wood.

sufficient hostages for his safety. These being delivered, Sir Andrew waited on the king at Leith. He had again and again, by messages, assured him that he knew nothing of the late king; and he had even offered to allow his ships to be searched: yet such was the anxiety of the new king, that he could not be satisfied till he had examined him in person. Young James had been long a stranger to his father, so that he could not have distinguished him easily from others. When Wood, therefore, entered the room, being struck with his noble appearance, he asked him, "Are you my father?" "I am not," replied Wood, bursting into tears; "but I was your father's true servant, and while I live I shall be the determined enemy of his murderers." This did not satisfy the lords, who demanded whether he knew where the king was. The admiral replied, that he knew not; and upon their questioning him concerning his manœuvres on the day of battle, when his boats were seen plying backwards and forwards, he told them, that he and his brother had determined to assist the king in person; but all they could do was to save some of the royalists in their ships. "I would to God, (says he), my king was there safely, for I would defend and keep him skaithless from all the traitors who have cruelly murdered him: for I think to see the day to behold them hanged and drawn for their demerits." This spirited declaration, and the freedom with which it was delivered, struck the guilty part of the council with dismay; but the fear of sacrificing the hostages procured Wood his freedom, and he was suffered to depart to his ships. When he came on board, he found his brother preparing to hang the two lords who had been left as hostages; which would certainly have been their fate, had the admiral been longer detained.

Wood had scarcely reached his ships, when the lords, calling the inhabitants of Leith together, offered them a large premium if they would fit out a sufficient force to destroy that bold pirate and his crew, as they called Wood; but the townsmen, who, it seems, did not much relish the service, replied, that Wood's ships were a match for any ten ships that could be fitted out in Scotland. The council then removed to Edinburgh, where James IV. was crowned on the 24th of June 1488.

375 Review of the reign of James III.

If we were to form an opinion of the manners of these times from the statutes enacted by the Scottish parliament during the reign of James III, we should suppose them to have been more refined than is evinced by the actions which we have just related. By those statutes the rights of the church were again confirmed, yet we have seen, from events, how little effect religion had produced on the morals of the age. One of the first acts of this reign was, to give the king the right of presentation to all benefices of ecclesiastical patronage, while the episcopal sees were vacant. The king was empowered *to hold plea of any matter personally, at his empleasance, as it was wont to be of before.* The parliament again delegated to a few of its members the whole legislative power; yet was it not felt in that age, as begetting contempt, and consequently disobedience. The *leges burgorum* were declared to be part of the law, and the books of *regiam majestatem* were called his *majesty's laws.* In these declarations we may perceive that the legislators of those times were not very accurate antiquaries, yet did the estates display a just anxiety for the preservation of their rolls and registers, by directing that they should be entered in books. With an allusion, perhaps, to the atrocities of that period, the three estates declared that murder and assassinations were not to be entitled to sanctuary. During this terrible reign, the parliament displayed more zeal than knowledge for promoting the agriculture and fishery, and for regulating the trade, coinage, and shipping of a people who still wanted credit, capital, and circulation, for the enjoyment of an active and profitable commerce. The legislative acts of this reign show, to an inquisitive eye, some progress towards civilization, though the history of its political events attests that there had been little improvement in the morality of the national character, or in the refinements of domestic life.

376 The regicides assemble a parliament.

In the month of October this year, the nobility and others who had been present at the king's coronation, converted themselves into a parliament, and passed an act by which they were indemnified for their rebellion against their late sovereign; after which, they ordered the act to be exemplified under the great seal of Scotland, that it might be producible in their justification if called for by any foreign prince. They next proceeded to the arduous task of vindicating their rebellion in the eyes of the public; and so far did they gain on the king by force of flattery, that he consented to summon the lords who had taken part with his father, before the parliament, to answer for their conduct. In consequence of this, not fewer than 28 lords were cited to appear at Edinburgh in the space of 40 days. The first on the list was the lord David Lindsay, whose form of arraignment was as follows. "Lord David Lindsay of the Byres, answer for the cruel coming against the king at Bannockburn with his father, giving him counsel to have devoured the king's grace here present; and, to that effect, gave him a sword and a good horse, to fortify him against his son. Your answer hereto." Lord Lindsay was remarkable for the bluntness of his conversation and the freedom of his sentiments; and being irritated by this charge, he delivered himself in such a manner concerning the treason of the rebellious lords, as abashed the boldest of his accusers. As they were unable to answer him, all they could do was to press him to throw himself on the king's clemency; which he refused, as being guilty of no crime. His brother, Patrick Lindsay, undertook to be his advocate, and apologized on his knees for the roughness of his behaviour, and at last observed an informality in the proceedings of the court; in consequence of which Lindsay was released, on entering into recognisance to appear again at an appointed day; but he was afterwards sent prisoner by the king's order, for a whole year, to the castle of Rothesay in the isle of Bute.

377 Trial of Lord David Lindsay of Byres;

378 Who is imprisoned.

The regicides now endeavoured to gain the public favour by affecting a strict administration of justice. The king was advised to make a progress round the kingdom, attended by his council and judges; while, in the mean time, certain noblemen and gentlemen were appointed to exercise justice, and to suppress all kinds of disorders in their own lands and in those adjoining to them, till the king came to the age of 21. The memory of the late king was branded in the most opprobrious manner. All justices, sheriffs, and stewards, who were possessed of heritable offices, but who had taken up arms for the late king, were either deprived of them for three years, or rendered incapable of enjoying them for

379 The new parliament affects popularity.

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for ever after. All the young nobility who had been disinherited by their fathers for taking arms against the late king, were, by act of parliament, restored to their several successions in the most ample manner. At last, in order to give a kind of proof to the world that they intended only to resettle the state of the nation, without prejudice to the lower ranks of subjects, who did no more than follow the examples of their superiors, it was enacted, "That all goods and effects taken from burgesses, merchants, and those who had only personal estates, or, as they are called, *unlanded men*, since the battle of Stirling, were not only to be restored, but the owners were to be indemnified for their losses; and their persons, if in custody, were to be set at liberty. Churchmen, who were taken in arms, were to be delivered over to their ordinances, to be dealt with by them according to the law." The castle of Dunbar was ordered to be demolished; and some statutes were enacted in favour of commerce, and for the exclusion of foreigners.

These last acts were passed with a view to recompense the boroughs, who had been very active in their opposition to the late king. Before they dissolved their parliament, the lords thought it necessary to give some public testimony of their disapproving the late king's connexion with England. It was therefore enacted, "That as the king was now of an age to marry a noble princess, *born and descended of a noble and worshipful house*, an honourable embassy should be sent to the realms of France, Brittany, Spain, and other places, in order to conclude the matter." This embassy was to be very splendid. It was to consist of a bishop, an earl, or lord of parliament, a secretary, who was generally a clergyman, and a knight. They were to be attended by 50 horsemen; 5000*l.* was to be allowed them for the discharge of their embassy, and they were empowered to renew the ancient league between France and Scotland; and, in the mean time, a herald, or, as he was called, a *trusty squire*, was sent abroad to visit the several courts of Europe, in order to find out a proper match for the king. One considerable obstacle, however, lay in the way of this embassy. The pope had laid under an interdict all those who had appeared in arms against the late king; and the party who now governed in Scotland were regarded by all the powers of Europe as rebels and murderers. The embassy was therefore suspended for a considerable time; for it was not till the year 1491 that the pope could be prevailed on to take off the interdict, upon the most humble submissions and professions of repentance made by the guilty parties.

380 Act relative to the king's marriage.

381 They are opposed by the pope. An. 1489.

In the mean time, the many good qualities which discovered themselves in the young king began to conciliate the affections of his people to him. Being considered, however, as little better than a prisoner in the hands of his father's murderers, several of the nobility made use of that as a pretence for taking arms. The most forward of these was the earl of Lenox, who with 2000 men attempted to surprise the town of Stirling; but, being betrayed by one of his own men, he was defeated, taken unawares, and the castle of Dumbarton, of which he was the keeper, taken by the opposite party. In the north, the earls Huntly and Marshal, with the lord Forbes, complained that they had been deceived, and declared their resolution to revenge the late king's death. Lord Forbes having procured the bloody shirt of the murdered prince, displayed it on the point of a lance, as a banner under which all loyal subjects should enlist themselves. After the defeat of Lenox, however, the northern chieftains found themselves incapable of marching southwards, and were therefore obliged to abandon their enterprise. The cause of the murdered king was next undertaken by Henry VII. of England, who made an offer to Sir Andrew Wood of five ships to revenge it. The admiral accepted the proposal; but the English behaving as pirates, and plundering indiscriminately all who came in their way, he thought proper to separate himself from them, yet without offering to attack or oppose them. Upon this, James was advised to send for the admiral, to offer him a pardon, and a commission to act against the English freebooters. Wood accepted the king's offer; and being well provided with ammunition and artillery, he, with two ships only, attacked the five English vessels, all of which he took, and brought their crews prisoners to Leith, for which he was nobly rewarded by his majesty.

382 Attempts to revenge the death of James III.

383 Henry VII. sends five ships for this purpose;

384 Who act piratically, and are all taken by Sir Andrew Wood.

This conduct of Wood was highly resented by the king of England, who immediately vowed revenge. The Scottish admiral's ships had been fitted out for commerce, as well as war; and Henry commanded his best sea officer, Sir Stephen Bull, to intercept him on his return from Flanders, whither he had gone upon a commercial voyage. Wood had not more than two ships with him: the English admiral had three; and these much larger, and carrying a greater weight of metal, than the Scottish vessels. The English took their station at the island of May, in the mouth of the frith of Forth, and, having come unawares upon their enemies, fired two guns as a signal for their surrendering themselves. The Scottish commander encouraged his men as well as he could; and finding them determined to stand by him to the last, began the engagement in sight of numberless spectators who appeared on both sides of the frith. The fight continued all that day, and was renewed with redoubled fury in the morning; but in the mean time the ebb-tide and a south wind had carried both squadrons to the mouth of the Tay. Here the English fought under great disadvantages, by reason of the sand-banks; and before they could get clear of them, all the three were obliged to submit to the Scots, who carried them to Dundee. Wood treated his prisoners with great humanity; and having afterwards presented them to King James, the latter dismissed them not only without ransom, but with presents to the officers and crews, and a letter to King Henry. To this Henry returned a polite answer, a truce was concluded, and all differences for the present were accommodated.

385 Sir Stephen Bull sent against the Scottish admiral;

386 But is taken with all his ships.

James all this time had continued to display such moderation in his government, and appeared to have the advantage of his subjects so much at heart, that they became gradually well affected to his government; and in 1490 all parties were fully reconciled. We may hence date the commencement of the reign of James IV.; and the next year the happiness of his kingdom was completed, by taking off the pope's interdict, and giving the king absolution for the concern he had in his father's death.

An. 1490.

Tranquillity being thus restored, the negociations concerning the king's marriage began to take place, but met with several interruptions. In 1493, Henry VII. proposed

An. 1493.

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proposed a match between the king of Scotland and his cousin the princess Catherine. James was too much attached to France to be fond of English connexions, and probably thought this match below his dignity: in consequence of which the proposal was treated with contempt. Notwithstanding this ill success, however, Henry made another offer of alliance with James; and, in 1495, proposed a marriage betwixt him and his eldest daughter Margaret. This proposal was accepted: but the match seems not to have been at all agreeable to James; for, at the very time in which he was negociating the marriage, he not only protected Perkin Warbeck, the avowed enemy and pretender to the crown of Henry, but invaded England on his account. This conduct was highly resented by the English parliament; but Henry himself forgave even this gross insult, and the marriage negociations were once more resumed. The bride was no more than ten years and six months old; and being only the fourth degree of blood from James, it was necessary to procure a dispensation from the pope. This being obtained, a treaty of perpetual peace was concluded between the two nations, on the 1st of July 1503, being the first that had taken place for 170 years, since the peace of Northampton, concluded between Robert I. and Edward III.

387 Marriage-treaty with England. An. 1495.

388 A firm peace with that nation. An. 1503.

One of the great ends which Henry had in view in promoting this marriage, was to detach James from the French interest: no sooner, therefore, was the treaty signed, than he wrote to his son-in-law to this purpose; who, however, politely declined to break with his ancient ally. On the 16th of June, the royal bride set out from Richmond in Surrey, in company with her father, who gave her convoy as far as Colleweston, the residence of his mother the countess of Richmond. After passing some days there, the king resigned his daughter to the care of the earls of Surrey and Northumberland, who proceeded with her to the borders of Scotland. Here many of the company were permitted to take their leave; but those who remained still made a royal appearance. At Lamberton church they were met by James, attended by a numerous train of his nobility and officers of state. From Lamberton they proceeded to Dalkeith, and next day to Edinburgh; where the nuptials were celebrated with the greatest splendour. On this occasion, it is said that the Scots surpassed all their guests in extravagance and luxury; a circumstance which must be imputed to the great intercourse and commerce which James and his subjects maintained with foreign courts and countries.

389 Magnificence of the royal nuptials.

390 James becomes a powerful monarch.

After the celebration of the nuptials, James appears to have enjoyed a tranquillity unknown almost to any of his predecessors; and began to make a considerable figure among the European potentates. But the magnificence of his court and embassies, his liberality to strangers and to learned men, his costly edifices, and, above all, the large sums he laid out in ship-building, had now brought him into some difficulties: and he so far attended to the advice and example of his father-in-law, that he supplied his necessities by reviving dormant penal laws, particularly with regard to wardships and old titles of estates, by which he raised large sums. Though he did this without assembling his parliament, yet he found agents who justified those proceedings, in the same manner as Epsom and Dudley did those of Henry, under the sanction of law. At last, however, touched with the sufferings of his subjects, he ordered all prosecutions to be stopped. He even went farther: for, sensible of the detestation into which his father-in-law's avarice had brought himself and his administration, he ordered the ministers who had advised him to those shameful courses to be imprisoned; and some of them, who probably had exceeded their commission, actually died in their confinement.

391 Applies himself to maritime affairs.

About this time, James applied himself, with incredible assiduity, to the building of ships; one of which, the St Michael, is supposed to have been the largest then in the world (M). He worked with his own hands in building it; and it is plain, from his conduct, that he was aspiring to maritime power, in which he was encouraged by the excellent seamen which Scotland then produced. The first essay of his arms by sea was in favour of his kinsman John King of Denmark. This

(M) Of this ship we have the following account by Lindsay of Pitscottie. "In the same year, the king of Scotland bigged a great ship, called the *Great Michael*, which was the greatest ship, and of most strength, that ever sailed in England or France. For this ship was of so great stature, and took so much timber, that, except Falkland, she wasted all the woods in Fife, which was oak wood, by all timber that was gotten out of Norway; for she was so strong, and of so great length and breadth (all the wrights of Scotland, yea, and many other strangers, were at her device, by the king's commandment, who wrought very busily in her; but it was a year and day ere she was complete); to wit, she was twelve score foot of length, and thirty-six foot within the sides. She was ten foot thick in the wall, outted jests of oak in her wall, and boards on every side, so stark and so thick, that no cannon could go through her. This great ship cumbered Scotland to get her to the sea. From that time that she was afloat, and her masts and sails complete, with tows and anchors effeiring thereto, she was counted to the king to be thirty thousand pounds of expenses, by her artillery, which was very great and costly to the king, by all the rest of her orders; to wit, she bare many cantons, six on every side, with three great hassils, two behind in her dock, and one before, with three hundred shot of small artillery, that is to say, myand and battret-falcon, and quarter-falcon, slings, pestelent serpetens, and double-dogs, with hagtor and culvering, cors-hows, and hand-bows. She had three hundred mariners to sail her; she had six score of gunners to use her artillery; and had a thousand men of war, by her captain, shippers, and quarter-masters.

"When this ship past to the sea, and was lying in the road, the king gart shoot a cannon at her, to essay her if she was wight, but I heard say, it deared her not, and did her little skaith. And if any man believe that this description of the ship be not of verity, as we have written, let him pass to the gate of Tulibardin, and there, afore the same, ye will see the length and breadth of her, planted with hawthorn, by the wright that helped to make her. As for other properties of her, Sir Andrew Wood is my author, who was quarter-master of her; and Robert Bartyne, who was master-shipper."

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prince was brother to the queen dowager of Scotland; and had partly been called to the throne of Sweden, and partly possessed it by force. He was opposed by the administrator, Sture, whom he pardoned after he was crowned. Sture, however, renewing his rebellion, and the Norwegians revolting at the same time, John found himself under such difficulties, that he was forced to return to Denmark; but he left his queen in possession of the castle of Stockholm, which she bravely defended against Sture and the Swedes. This heroic princess became a great favourite with James; and several letters that passed between them are still extant. The king of Denmark, next to the French monarch, was the favourite ally of James; who, early in his reign, had compromised some differences between them. It likewise appears, from the histories of the north, that both James and his father had given great assistance to his Danish majesty in reducing the Norwegians; and he resolved to become a party in the war against the Swedes, and the Lubeckers who assisted them, if the former continued in their revolt. Previous to this, he sent an ambassador to offer his mediation between John and his subjects. The mediation was accordingly accepted, and the negociations were opened at Calmar. The deputies of Sweden not attending, John prevailed with those of Denmark and Norway to pronounce sentence of forfeiture against Sture and all his adherents. In the mean time, the siege of the castle of Stockholm was so warmly pressed, that the garrison was diminished to a handful, and those destitute of all kinds of provisions; so that the brave queen was forced to capitulate, and to surrender up the fortress, on condition that she might be suffered to depart for Denmark; but the capitulation was perfidiously broken by Sture, and she was confined in a monastery.

392 James assists Denmark against Sweden.

It was on this occasion that James resolved to employ his maritime power. He wrote a letter, conceived in the strongest terms, to the archbishop of Upsal, the primate of Sweden, exhorting him to employ all his authority in favour of the king; and another letter to the Lubeckers, threatening to declare war against them, as well as the Swedes, if they jointly continued to assist the rebels. According to Hollinshed, James, in consequence of King John's application, gave the command of an army of 10,000 men to the earl of Arran, who replaced John upon his throne. Though this does not appear to be strictly truth, yet it is certain, that, had it not been for James, John must have sunk under the weight of his enemies. Sture, whose arms had made great progress, hearing that a considerable armament was fitting out in Scotland, and knowing that James had prevailed with the French king to assist John likewise, agreed to release the queen, and to conduct her to the frontiers of Denmark; where she died. By this time, James's armament, which was commanded by the earl of Arran, had set sail; but perceiving that all matters were adjusted between John and the Swedes, the ships returned sooner than James expected, "which (says he, in a very polite letter he wrote to the queen upon the occasion) they durst not have done, had they not brought me an account that her Danish majesty was in perfect health and safety." The severity of John having occasioned a fresh revolt, James again sent a squadron to his assistance, which appeared before Stockholm, and obliged the Lubeckers to conclude a new treaty.

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393 Chastises the Flemings and Hollanders.

James, having thus honourably discharged his engagements with his uncle the king of Denmark, turned his attention towards the Flemings and Hollanders, who had insulted his flag, on account of the assistance he had afforded the Duke of Gueldres, as well as from motives of rapaciousness, which distinguished those traders, who are said not only to have plundered the Scots ships, but to have thrown their crews overboard to conceal their villany. James gave the command of a squadron to Barton; who put to sea, and, without any ceremony, treated all the Dutch and Flemish traders who fell into his hands as pirates, and sent their heads in hogsheads to James. Soon after, Barton returned to Scotland, and brought with him a number of rich prizes, which rendered his reputation as a seaman famous all over Europe.—James was then so much respected on the continent, that we know of no resentment shown either by the court of Spain, whose subjects those Netherlanders were, or of any other power in Europe, for this vigorous proceeding.

394 Cause of quarrel with England.

The peace with England continued all the remaining part of the reign of Henry VII.; nor did his son Henry VIII., though he had not the same reason as his father to keep well with the Scots, for some time show any disposition to break with them. A breach, however, at length took place, and was never afterwards thoroughly made up.

About 30 years before, one John Barton (a relation, probably, to the famous Barton) commanded a trading vessel, which was taken by two Portuguese sea captains in the port of Sluys; and the captain, with several Scotchmen, were killed in endeavouring to defend their property. The action was esteemed cowardly as well as piratical, because it was done under the protection of a large Portuguese squadron. The ship, and the remaining part of the crew, with the cargo, were carried to Portugal, whence no redress could be obtained; and James III. granted letters of marque to John and Robert Bartons, heirs to the Barton who had been murdered. Upon the accession of James IV. to the crown of Scotland, the letters of marque were recalled, and a friendly correspondence was entered into between James and his Portuguese majesty. No redress, however, was to be had from the latter; and Robert Barton being made prisoner, and his ship a prize, he was detained in Zealand, till James procured his deliverance, by applying in his favour to the emperor Maximilian. Sir Andrew Barton took part in the quarrel; and having obtained a like letter of marque, he made dreadful depredations on the Portuguese trade, and, according to English authors, he plundered many English ships, on pretence of their carrying Portuguese property, and made the navigation of the narrow seas dangerous to Englishmen. The court of London received daily complaints of Barton's depredations: but Henry being at this time very averse to quarrel with James, these complaints were heard with great coldness at his council-board. The earl of Surrey had then two sons, gallant noblemen; and he declared to Henry's face, that while he had an estate that could furnish out a ship, or a son who was capable of commanding one, the narrow seas should not be infested. Henry could not discourage this generous offer; and letters of marque were accordingly granted to the two young noblemen, Sir Thomas and Sir Edward Howard. The prizes that Barton had

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taken had rendered his ships immensely rich, consequently they were heavy laden, and unfit for fighting; while we may easily suppose, that the ships of the Howards were clean, and of a superior force in every respect to those of Barton. After encountering a great deal of foul weather, Sir Thomas Howard came up with the Lyon, which was commanded by Sir Andrew Barton in person; and Sir Edward fell in with the Unicorn, Barton's other ship. The event was such as might be expected from the inequality of the match. Sir Andrew Barton was killed, while he was animating, with his whistle, his men to hold out to the last; and both the Scotch ships being taken, were carried in triumph to London, with their crews prisoners.

James could never forgive Henry for the loss of his brave officer. He sent to demand satisfaction; but all the answer he received was, that Barton and his crews were lawless pirates, and that what had been done against them ought never to have been resented amongst sovereign princes. James asserted that Barton was no pirate, because he bore his commission; and that he ought to have been convicted of piratical acts before he was treated as being guilty of them. Henry intimated to James, that he was willing to accommodate the affair by way of negociation; but James thought himself affronted by the proposal.

395 James resolves to invade England. An. 1513.

Various negociations took place concerning this and other affairs till the year 1513; when James, though he had for some time before been fully resolved on a war with England, thought it highly necessary that it should have the sanction of his parliament, which he assembled for that purpose. The young nobility were not only inspired with the sentiments of James, but had been won over by the French; and the majority of them, as well as of the clergy (which was somewhat extraordinary, as James was, in effect, to fight against the pope and his allies), were keen for a war with England. The old counsellors, on the other hand, who saw the flourishing state of Scotland, arising from a long peace and commerce protected by a fleet, dreaded the ruinous consequences of the war. The queen naturally headed this party; and she was joined by the earl of Angus and the wisest part of the nobility. Their arguments made no impression upon James, who had received a present from Louis of four ships laden with wine and flour, and two ships of war completely equipped, one of them carrying 34 pieces of brass ordnance. He promised to the French queen, upon his honour, that he would take the field against the English; and she had sent him a fresh letter, gently reproaching him for want of gallantry, and for not being so good as his word. In short, the reasonings of the wisest and best part of the nobility were overruled, and the expedition against England was resolved on.

396 The Scots defeated.

The earl of Hume, who was chamberlain of Scotland, was, at this juncture, at the head of 7000 or 8000 men, with whom he committed prodigious devastations on the English borders. Henry's queen, Catharine of Spain, whom he had left regent of his dominions, issued a commission of array, directed to Sir Thomas Lovel, knight of the Garter, for assembling the militia of the counties of Nottingham, Derby, Warwick, Leicester, Stafford, Rutland, Northampton, and Lincoln. The management of the war, however, was chiefly committed to the earl of Surrey, who assembled the militia of Chester, Lancaster, Northumberland, Westmoreland, Cumberland, and the bishopric of Durham. The earl of Hume had by this time laid great part of Northumberland waste; and his men were returning home laden with booty. The earl of Surrey, resolving to intercept them, ordered Sir William Bulmer to form an ambush with 1000 archers, at a place called *Broomhouse*, which was extremely convenient for that purpose, as the Scots were obliged to pass that way. As the latter expected nothing of that kind, Bulmer executed his orders with great success. The archers assaulted the Scots all at once, and made so good use of their arrows, that their main body was put to flight, 500 were killed, and 400 taken, with the lord Hume's standard, which he left on the field of battle; the greatest part of the plunder being recovered at the same time. The commonalty of Scotland termed this expedition of the lord Hume's the *Ill road*.

397 The queen endeavours to dissuade James from his design.

James was more exasperated than ever by this defeat, and continued his preparations for invading England with additional vigour. His queen did all that became a wise and prudent wife to divert him from his fatal purpose. She endeavoured to work on his superstition, by recounting to him her ominous dreams and boding apprehensions. James treating these as mere illusions and fictions of the brain, she had recourse to other arts. While James was waiting at Linlithgow for the arrival of his army from the north and the Highlands, he assisted one afternoon at the vespers in the church of St Michael. Being placed in one of the canon's seats, a venerable comely man, of about 52 years of age, entered, dressed in a long garment of an azure colour, and girded round with a towel or roll of linen, his forehead bald, and his yellow locks hanging down his shoulders; in short, he was dressed and formed to appear like St Andrew, the apostle of Scotland, as he is represented in painting and sculpture. The church being crowded, this personage, with some difficulty, made his way to the king's seat; and leaning over it, he spoke to the following purpose: "Sir (said he), I am sent hither to intreat you for this time to delay your expedition, and to proceed no farther in your intended journey; for if you do, you shall not prosper in your enterprise, nor any of your followers. I am further charged to warn you, if ye be so refractory as to go forward, not to use the acquaintance, company, or counsel of women, as ye tender your honour, life, and estate." After delivering these words, he retired through the crowd, and was no more seen, though, when the service was ended, James earnestly inquired after him.

398 A phantom appears to him.

That this scene was acted, seems to be past dispute; for Sir David Lindsay, who was then a young man, and present in the church, reported it both to Buchanan and Lindsay the historian. It is, however, equally certain, that the whole was a contrivance of the queen, to whose other afflictions the stings of jealousy were now added. In one of the Scotch inroads into England, one Heron, the proprietor of the castle of Ford, had been taken prisoner, and sent to Scotland; where he was detained on a charge of murder, of which he seems to have been innocent. The English historians mention this as having passed after James entered England: but from the latter part of the supposed phantom's speech, it it probable that it happened before; and

399 James deluded by his mistress.

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and that Heron's wife and beautiful daughter had been for some time soliciting James for his deliverance. Be that as it may, it is too probable that James was smitten with the charms of the daughter; and that her mother, who was a most artful woman, knew how to avail herself of the conquest. Pretending that she had interest enough to procure the release of the lord Johnston and Alexander Home, who were prisoners in England, she was permitted by James to keep a constant correspondence with the earl of Surrey, to whom she is said to have betrayed all James's secrets and measures. The rendezvous of James's army was at the Burrow-moor, to which James repaired; and having given orders for the march of his artillery, he lodged at the abbey of Holyroodhouse. While he was there, another attempt was made to divert him from his purpose of invading England: but James, deaf to all the solicitations and inventions of his queen, mustered his army; and on the 22d of August he passed the Tweed, encamping that night near the banks of the Twissel. On his arrival at Twisselhaugh on the 14th, he called an assembly of his lords together, and made a declaration, that the heirs of all such as should die in the army, or be killed by the enemy during his stay in England, should have their wards, relief, and marriages of the king; who, upon that account, dispensed with their age. This is said to have been the crisis of that prince's fate. Abandoned to his passion for his English mistress, she prevailed with him, at her mother's instigation, to trifle away his time for some days; during which interval, the junction of the English army was formed. The earl of Surrey, the English general, was then at Pomfret: but ordered the landholders of the neighbouring counties to certify to him in writing what number of men each could furnish, charging them to be ready at an hour's warning; and he laid his plan so as not to bring his army into the field till James had advanced so far into England as to render it very difficult for him to retire without a general battle. This precaution assisted the lady Ford (as she is called) in persuading James that there was no danger in the delay, because the English had not the face of an army in the field.

In the mean time, the earl of Surrey ordered the governors of Berwick and Norham, the two strongest places on the frontiers of England, to prepare for a vigorous resistance in case they were attacked; and directed them to certify how long they could hold out, in hopes, that if they made a resolute defence, James would march on, and leave them in his rear. The governor of Norham's answer was, that his castle was so well provided, as to leave him no doubt, in case of a siege, to be able to defend it till King Henry should return from abroad, and relieve it in person. James, however, besieged it on the 25th of August, and battered it so furiously, that he took it by capitulation the sixth day after. James then proceeded to the castle of Etal belonging to the family of Manners (now duke of Rutland); which he took and demolished likewise, as he also did Wark, and arrived before the castle of Ford. The Scotch army is generally allowed to have consisted of at least 50,000 men when it passed the Tweed. At this time it was encamped on the heights of Cheviot, in the heart of a country naturally barren, and now desolate through the precautions taken by the English general. Being obliged to extend their quarters for the benefit of subsistence, the mercenary part of them had acquired a considerable plunder, with which, as usual, they retired to their own country, as many more did for want of subsistence. The earl of Surrey knew their situation, and ordered the rendezvous of his army, first at Newcastle, and then near Norham, having certain intelligence of the vast desertions daily happening in the Scotch army, which had reduced it greatly. The wetness of the season rendered his march, especially that of the artillery, extremely difficult; but being joined by several persons of distinction, he marched on the 3d of September to Alnwick, where he was reinforced by 5000 hardy veteran troops, sent from the English army on the continent, under the command of his son the lord-admiral of England; so that, as the English authors admit, his army consisted of 26,000 men, all completely armed and provided for the field. James having, in the manifesto which he dispersed on his entering England, given the death of Barton as one of the causes of his invasion, the lord-admiral had prevailed with Henry to send him upon this service; and he informed James by a letter, that he intended to justify the death of that pirate in the front of the English army.

400 The Scots take the castles of Norham, Etal, and Wark.

By this time the army of James was, by desertion and other causes, reduced to less than half its numbers; but the chief misfortune attending it was his own conduct. His indolence and inactivity, joined to the scandalous example of his amours, at such a season, had disgusted several of his greatest men and best friends; and some of them more than suspected a correspondence between the English lady and the earl of Surrey. James was deaf to all their remonstrances; and the earl of Angus declared, that he was resolved to return home, as he foresaw that the ruin of the army was inevitable through the obstinacy of James. He accordingly withdrew to Scotland, but left behind him his two sons. The lord Hume and the earl of Huntly were likewise discontented. The former had brought his men into the field; but according to some Scotch historians, with a design rather to betray than to serve James; but Huntly, though he disliked his master's conduct, remained firmly attached to his person.

401 James disgusts several of his nobility.

The defection or backwardness of those great men seemed to make no impression upon James. He had chosen a strong camp in the neighbourhood of Ford, on the side of a mountain called Flodden-hill; and he was separated from the English army by the river Till. This advantageous situation put the earl of Surrey under great difficulties; for it rendered the Scotch army inaccessible, as it was fortified by artillery, and was now well supplied with provisions by the change of its situation. The earl drew up a manifesto, with which he charged Rouge Croix herald, who was attended by a trumpet. It contained some proposals for an exchange of prisoners, which seems to have been calculated to give the lady Ford the more credit with James; but concluded with reproaches for his perfidious invasion of England, and a defiance to James to fight him in a general battle. The herald was farther charged with a verbal commission to acquaint James, that the earl of Surrey had issued orders that no quarter should be given to any of the Scotch army but the king himself.

402 Encamps in an advantageous situation.

A council of war was called on this occasion; in which the earl of Huntly and others made strong remonstrances

monstrances against a general engagement. They shewed how fatal it must be to Scotland, should it prove unsuccessful; and that the wisest course James could follow was to return home, where, if he was pursued by the enemy, he could fight to great advantage. The earl of Huntly, however, added, that his opinion should be determined by that of the king and council; and that he was equally ready to share in his majesty's danger as his glory.

403 Resolves to fight contrary to the opinion of all his officers.

Huntly and the other noblemen were opposed by the French ambassador, who represented a retreat as disgraceful to the nobility of Scotland and the arms of James; and used many romantic arguments of the same kind, which but too well suited with the king's disposition. According to Drummond, the council were of opinion that the king should immediately besiege Berwick; but the majority of them declared that it was beneath the dignity of James to fight the earl of Surrey at that nobleman's requisition, and that James could lose no honour by returning home. Patrick Lord Lindsay of Byres, mentioned on a former occasion, and who was president of the council, expressed himself so strongly on that head, that James, in a passion, is said by the historian Lindsay to have sworn, that if ever he lived to return to Scotland, he would hang that nobleman at his own gate. He ordered Rouge Croix to be called in; and after treating him with great politeness, he sent a message to the earl of Surrey by one of his own heralds (Islay), importing, that he would give the English battle on the Friday following; and that had he received such a message from the earl even in his own castle of Edinburgh, he would have left that, and all other business, to fight him. With this message, a small manifesto, in vindication of James's conduct, was sent by the same herald.

The earl of Surrey, who was then so infirm that he was carried about in a sedan or chariot, had foreseen that James would return an answer by one of his own heralds; but, unwilling that he should obtain any knowledge of the situation of the English camp, he ordered proper persons to receive him at two miles distance, where soon after he attended himself in person. Islay executed his commission, without paying much respect to the person of the English general; who dismissed him, after bestowing great compliments on the honour and courage of James. The earl then ordered his army to march in the line of battle towards Wollerhaugh. There he was joined by Rouge Croix, his herald, who gave him an account of the strong situation of the Scottish camp; but the advanced posts of the English army, were then within three miles of their enemies, and the earl of Surrey found his difficulties daily increasing. The roads were broken up, the swelling of the rivers cut him off from the necessary communications for supplying his army, and nothing but a battle could save him either from being disbanded or destroyed.

James seems to have so far regarded the advice of his wisest counsellors, as not to abandon his strong situation. They endeavoured to persuade him, that it was a sufficient guard to his honour, if he did not decline the battle on the day appointed; and that his engagement did not bind him to fight upon disadvantageous ground. The Scots, at the same time, knew of their enemy's distresses; and, as Drummond elegantly expresses it, they remonstrated to their king, that he lacked nothing but patience to be victorious. The Scots thus lying on the defensive, the earl of Surrey again sent Rouge Croix to inform James that he was ready to give him battle. James was sensibly nettled at this tacit imputation on his honour, and perhaps was inwardly vexed at having followed the wise advice of his noblemen. It appears, from the best authorities, that he neglected the necessary precautions for guarding the passages of the Till, which the English crossed, partly at a place where it was fordable, and partly at a bridge. We are told, not without great appearance of probability, that while the English were passing the bridge, Borthwick, master of the Scotch artillery, fell on his knees, and begged permission from James to point his cannon against the bridge; but that James answered him in a passion, that it must be at the peril of his (Borthwick's) head, and that he was resolved to see all his enemies that day on the plain before him in a body. The earl of Surrey, after passing the Till, took possession of Braxton, which lay to the right of the Scotch camp; and by that situation he cut off the communication of his enemies with the Tweed, and commanded the Till below Eton-castle. The Scotch generals saw themselves now in danger of being reduced to the same straits in which their enemies had been involved two days before, and their country open to an invasion of the English army. James had secret intelligence that this was far from being the intention of the English general; and imagining that the latter's intention was to take possession of a strong camp upon a hill between him and the Tweed, which would give the English a farther command of the country, he resolved to be before-hand with the earl, and gave orders for making large fires of green wood, that the smoke might cover his march along the height, to take advantage of that eminence. But while this stratagem concealed his march from the English, their movements were concealed from him: for when he came to the brow of the height over which he had marched, he found the enemy drawn up in order of battle on the plain, but so close to the height where he was, that his artillery, on which his great dependence was, must overshoot them.

404 His imprudent conduct.

405 Account of the battle of Flodden. 9th September. An. 1513.

A battle was now not only unavoidable, but the only means of saving the Scotch army, which was probably far from being a disagreeable circumstance to James. His person was so dear to his troops, that many of them dressed themselves as nearly as they could in the same coats of armour and with the same distinctions that James wore that day. His generals had earnestly desired him to retire to a place of safety, where his person would be secure in all events: but he obstinately refused to follow their advice; and on the 9th of September, early in the morning, dispositions were ordered for the line of battle. The command of the van was allotted to the earl of Huntly; the earls of Lenox and Argyle commanded the Highlanders under James, who, some say, served only as a volunteer; and the earls of Crawford and Montrose led the body of reserve. The earl of Surrey gave the command of his van to his son, the lord admiral; his right wing was commanded by his other son, Sir Edward Howard; and his left by Sir Marmaduke Constable. The rear was commanded by the earl himself, Lord Dacres, and Sir Edward Stanley. Under those leaders served the flower of all the nobility and gentry then in England. Other writers give different accounts of the disposition of the English army, but they may be reconciled by the different forms into which the battle was thrown before it was decided. The lord

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Hume is mentioned as serving under the earls of Crawford and Montrose, and Hepburn earl of Bothwel was in the rear.

The first motion of the English army was by the lord-admiral, who suddenly wheeled to the right, and seized a pass at Milford, where he planted his artillery so as to command the most sloping part of the ascent on which the Scots were drawn up; and it did great execution. The Scots had not foreseen this manœuvre; and it threw them into such disorder, that the earl of Huntly found it necessary to attack the lord-admiral; which he did with so much fury, that he drove him from his post; and the consequence must have been fatal to the English, had not his precipitate retreat been covered by some squadrons of horse under the lord Dacres, which gave the lord-admiral an opportunity of rallying and new-forming his men. The earl of Surrey now found it necessary to advance to the front, so that the English army formed one continued line, which galled the Scots with perpetual discharges of their artillery and bows. The Highlanders, as usual, impatient to come to a close fight, and to share in the honour of the day, which they now thought their own, rushed down the declivity with their broad swords, but without order or discipline, and before the rest of the army, particularly the division under Lord Hume, advanced to support them. Their impetuosity, however, made a considerable impression on the main body of the English; and the king bringing up the earl of Bothwel's reserve, the battle became general and doubtful: but by this time the lord-admiral, having again formed his men, came to the assistance of his father, and charged the division under the earls of Crawford and Montrose, who were marching up to support the Highlanders, among whom the king and his attendants were now fighting on foot: while Stanley, making a circuit round the hill, attacked the Highlanders in the rear. Crawford and Montrose, not being seconded, according to the Scottish historians, by the Humes, were routed; and thus all that part of the Scotch army which was engaged under their king, was completely surrounded by the division of the English under Surrey, Stanley, and the lord-admiral. In this terrible situation, James acted with a coolness not common to his temper. He drew up his men in a circular form, and their valour more than once opened the ranks of the English, or obliged them to stand aloof, and again have recourse to their bows and artillery. The chief of the Scotch nobility made fresh attempts to prevail with James to make his escape while it was practicable; but he obstinately continued the fight; and thereby became accessory to his own ruin, and that of his troops, whom the English would gladly have suffered to retreat. He saw the earls of Montrose, Crawford, Argyle, and Lenox, fall by his side, with the bravest of his men lying dead on the spot; and darkness now coming on, he himself was killed by an unknown hand. The English were ignorant of the victory they had gained; and had actually retreated from the field of battle, with a design of renewing it next morning.

406 In which the Scots are defeated and their king killed.

This disaster was evidently owing to the romantic disposition of the king himself, and to the want of discipline among many of his soldiers; though some writers have ascribed it to the treachery of Lord Hume. Many of James's domestics knew and mourned over his body; and it appeared that he had received two mortal wounds, one through the trunk with an arrow, and the other in the head with a ball. His coat of armour was presented to Queen Catharine, who informed her husband, then in France, of the victory over the Scots. The loss on both sides, in this engagement, is far from being ascertained; though Polydore Virgil, who lived at the time, mentions the loss of the English at 5000, and that of the Scots at 10,000 men.

407 Review of the reign James IV.

Thus fell James IV. after having exercised the regal power for 25 years, and lived about 40. In reviewing the principal transactions of his reign, our chief attention is directed to the acts of the legislature. These, as in the preceding reigns, appear to have been very mindful of the freedom of the *halie kirke*. During the year 1489, was passed an act, by which it was made criminal for any one to intermeddle with the profits or duties of the church; and this act, which did not long protect, either the church or the clergy from the rapacity of the times, was speedily followed by legislative declarations *for universal concord among the king's lieges*. The parliament also endeavoured to protect the king's privileges, considering him, still, however, as a minor; but he attempted in vain to restore to the royal prerogative the necessary vigour of ancient times. Additional exemptions were given to those members whose duty required their constant attendance in parliament; but by these exemptions the authority of the parliament was neither strengthened nor enlarged. The general principles of former ages, that the king, by his precept, might summon any of his subjects to give their presence and advice in parliament, was again recognised; and considering how much of the public revenue was paid by the boroughs, it was a salutary provision that their deputies should be always summoned as representatives of one of the three estates, when it was intended to require contributions from the people.

There seems to have been, during this reign, considerable zeal for promoting domestic economy, though the best means were not always employed for that purpose. Agriculture was encouraged, weights and measures were settled, *craftsmen* were regulated, coins were struck, the value of money diminished, and shipping were required to come first to the free boroughs. In addition to all these regulations, it was enacted under a penalty, that barons and freeholders should send their eldest sons to the schools, to learn Latin and law; but there seems to have been no provision made for instructing them in the more important information of morals and manners, in which the nation was notoriously deficient. *

* See *Chalmers's Caledonia*. p. 837.

408 The queen dowager assumes the government.

After the death of King James IV. the administration devolved on the queen-dowager; but she being pregnant with a posthumous child, and unable to bear the weight of public business, accepted Beaton archbishop of Glasgow and chancellor of Scotland, with the earls of Huntly, Angus, and Arran, to assist her in the affairs of government.

409 Writes to the king of England.

Soon after her husband's death she had written an affecting letter to her brother the king of England, informing him of her pregnancy, setting forth the deplorable state of the kingdom, with her own condition, and imploring his friendship and protection for herself and her infant son. This letter seems never to have been communicated by Henry to his council; but he answered it, and informed his sister, that if the

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the Scots would have peace, they should have peace, and war if they chose it. "He added (according to Drummond), that her husband had fallen by his own indiscreet rashness, and foolish kindness to France; that he regretted his death as his ally, and should be willing to prohibit all hostility against the country of Scotland during the minority of her son. For a remedy of present evils, one year's truce and a day longer was yielded unto; in which time he had leisure to prosecute his designs against France, without fear of being disturbed or diverted by the incursions and inroads of the Scots upon his borders."

410 The Scottish affairs in great confusion.

Thus far Drummond: But though Henry might grant this time to his sister's intreaty, yet it certainly did not become a national measure; for it appears by a letter dated two years after, from the Scots council to the king of France, published by Rymer, that the Scots never had desired a truce. So far from it, the French influence, joined to a desire of revenge, remained so strong in the kingdom, that after the meeting of the parliament, some of the members were so violent as to propose a renewal of the war. This motion was indeed overruled by the more moderate part of the assembly: but they could not be brought to make any advances towards Henry for a peace; and every day now teemed with public calamity, which seems to have gathered strength while the queen was in childbed. The archbishoprick of St Andrew's being vacant, it was offered by universal consent to Elphinston bishop of Aberdeen; but being now old and infirm, he declined it. Three competitors for that high dignity then appeared. The first was Gawin Douglas, then abbot of Aberbrothwick, to which he was presented by the queen on her recovery (having been brought to bed of a son), the very day before her marriage with his nephew the earl of Angus: and upon the death of Bishop Elphinston in November following, she presented him likewise to the archbishopric of St Andrew's. The second competitor was John Hepburn, prior of St Andrew's; a bold, avaricious, restless, but shrewd and sensible priest. By his office he had received the rents of the see during its vacancy; and having prevailed with the canons, on pretence of ancient privileges, to elect him archbishop, without regard to the nomination either of the queen or pope, he drove Douglas's servants from the castle of St Andrew's, of which they had taken possession. The third and most powerful competitor was Forman bishop of Moray in Scotland, and archbishop of Bourges in France, a dignity to which he had been raised for his public services. He had in his interest not only the duke of Albany (son to the traitor duke) first prince of the blood, but also the court of Rome itself; and having received the pope's bull and nomination to the dignity, he was considered by the Scotch clergy in general, and by the principal tenants and dependants on the see, as the legal archbishop.

The preference given to Forman discouraged Douglas from pursuing his pretensions; but Hepburn, being supported by the clan of his own name and by the Humes, made so formidable an opposition to his rivals, that none could be found sufficiently daring to publish the papal bull in favour of Forman. The friends of the latter, however, having intimated to the earl of Hume, that his credit at the court of Rome could easily procure the rich abbey of Coldingham for his younger brother, the earl put himself at the head of his followers, and, notwithstanding all the opposition given by the Hepburns, he proclaimed the pope's bull at the cross of Edinburgh. This daring action plainly proved that the earl of Hume had more power than the queen-regent herself; but Hepburn's resolution and the greatness of his friends, obliged Forman to agree to a compromise. Hepburn was advanced to the see of Moray, without accounting for the revenues of the archbishopric, which he had received during its vacancy; and he gave Forman a present of three thousand crowns, to be divided among his friends and followers.

An. 1514.

411 The queen dowager married to the earl of Angus.

In April 1514, the posthumous son, of whom the queen had been delivered in Stirling castle, was by the bishop of Caithness baptized by the name of Alexander. On the 6th of August this year she was married to the earl of Angus; a circumstance than which nothing could be accounted more impolitic. She had neither consulted her brother nor the states of Scotland in the match; and by her having accepted of a husband, she in fact resigned all claim to the regency under the late king's will. The Douglases did not dispute her having divested herself of the regency; but they affirmed, that the parliament might lawfully reinstate her in it; and that the peace of the kingdom required it, as it was the only measure that could preserve the happy tranquillity which then subsisted between Scotland and England. The earl of Hume put himself at the head of the opposition to this proposal. He knew that he had enemies, and he dreaded that the farther aggrandizement of Angus might weaken his interest on the borders. He was joined by a number of the young nobility, who, though divided among themselves, united against Angus. In short, the general opinion was, that the Douglases were already too great; and that, should the queen be reinstated in the regency, they must be absolute within the kingdom, and engross all places of power and profit. It was added by the earl of Hume, that he had, out of respect to the late king's memory, submitted to the queen's government; and that, now when she had made a voluntary abdication of it by her marriage, it ought not to be renewed.

412 The duke of Albany chosen regent.

After some deliberations, the duke of Albany was chosen regent. He was a man possessed of all the qualities requisite for a good governor; nor did he disappoint the expectations of the public. On his arrival at Glasgow, he took upon him the titles of earl of March, Marr, Garioch, lord of Annandale, and of the isle of Man, regent and protector of the kingdom of Scotland. On his arrival at Edinburgh, he was received in form by the three estates of the kingdom, and the queen had met him at some distance from the town. The parliament then resumed its session, and the three estates took an oath of obedience, till the king, then an infant of four years old, should arrive at the years of maturity.

The first point at which the regent aimed, was the conciliating the differences amongst the various contending families in the kingdom; at the same time, that he suppressed some daring robbers, one of whom is said to have had not fewer than 800 attendants in his infamous profession. So great was his love of good order and decency, that he punished the lord Drummond with the loss of his estate for having struck Lyon king at arms, whose person, as the first herald in Scotland, ought

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ought to have been held sacred. Nay, it was at the earnest solicitation of Lyon himself, and many of the chief nobility, that a greater punishment was not inflicted. The forfeiture was afterwards, however, remitted; but not before Drummond had, upon his knees, acknowledged his offence, and humbled himself before Lyon.

413 Hepburn becomes his chief favourite.

The regent had not been long in office before he took into favour Hepburn the prior of St Andrew's, whom he consulted for information concerning the state of Scotland. Hepburn acquainted him with all the feuds and animosities which raged among the great families of Scotland, their ferocious character, and barbarous behaviour to their enemies. He represented the civil power as too weak to curb these potent chieftains; and gave it as his opinion that the regent's administration ought to be supported by foreign arms, meaning those of France.

414 He attempts to destroy the earl of Hume,

Hepburn is said also to have gained an ascendency over the regent by means of large sums of money laid out among his domestics, by an insinuating and plausible address, and by well directed flatteries: and he employed this ascendency to destroy those who were obnoxious to himself. The earl of Hume, as being the first subject in rank and authority, became obnoxious to the regent through the insinuations of Hepburn; and as that nobleman had frequent occasion to be at court by virtue of his office of chamberlain, he soon perceived that neither he nor his friends were welcome guests there. Alarmed for his own safety, he resolved to form a party with the queen-mother and her new husband against the regent. This was by no means a difficult task: for the queen naturally imagined that her new husband ought to have had some share in the government; and the earl of Angus readily concurred in the scheme. In the mean time, the regent was making a progress through Scotland, while bloody feuds were raging among the nobles: but before any remedy could be applied to these disorders, he was informed of the schemes laid by the queen-mother and her party; and that she had resolved to fly into England with her two infants. On this he instantly returned to Edinburgh; and as no time was to be lost, set out that very night, and surprised the castle of Stirling, where he found the queen-mother and her two infants.

The regent, after this bold step, took care to show that the care of the royal infants was his chief study. As he himself was nearly allied to the crown, in order to remove all suspicions and calumnies on that account, he committed the care of the king and his brother to three noblemen of the most unexceptionable characters in the kingdom, but of whom we now know the name only of one, viz. the earl of Lenox. They were appointed to attend the princes by turns; to whom also a guard, consisting partly of French and partly of Scots, was assigned; and the queen-mother was left at liberty to reside where she pleased.

415 who is driven into England.

The earl of Hume, finding his schemes thus abortive, retired to his own estate; whence he was soon after driven, and obliged to fly into England, by the earls of Arran and Lenox. The queen-mother retired to a monastery at Coldstream; and messengers were despatched to the court of England, to know how Henry would have his sister disposed of. He ordered the lord Dacres, his warden of the marches, to attend her to Harbottle-castle in Northumberland; and here she was delivered of her daughter the Lady Mary Douglas, mother to Henry Lord Darnley, father to James VI. The regent despatched ambassadors to Henry, in order to vindicate his own conduct. He likewise sent to assure the queen that she had nothing to fear in Scotland; and to invite her to return thither, where she should at all times be admitted to see her children. This offer, however, she declined; and set out for London, where she was affectionately received and entertained by her brother. But in the mean time many disorders were committed throughout the kingdom by the party of the queen-mother; though, by the interposition of Archbishop Forman, they were at present terminated without bloodshed, and some of the principal offenders were persuaded to return to their duty. Among these was the earl of Angus himself, the queen's husband; which when King Henry heard, he exclaimed, "That the earl, by deserting his wife, had acted *like a Scot.*" Lord Hume refused to surrender himself, or to accept of the regent's terms; and was of consequence declared a traitor, and his estate confiscated. All this time he had been infesting the borders at the head of a lawless banditti; and now he began to commit such devastations, that the regent found it necessary to march against him at the head of 1000 disciplined troops. Hume being obliged to lay down his arms, was sent prisoner to Edinburgh castle; where the regent very unaccountably committed him to the charge of his brother-in-law the earl of Arran. Hume easily found means to gain over this near relation to his own party; and both of them, in the month of October 1515, escaped to the borders, where they soon renewed hostilities. Both the earls were now proclaimed traitors, but Hume was allowed fifteen days to surrender himself. This short interval the regent employed in quelling the rebellion, for which purpose the parliament had allowed him 15,000 men. He besieged the castle of Hamilton, the earl of Arran's chief seat, which was in no condition for defence: but he was prevailed on by Arran's mother, daughter to James II. and aunt to the regent himself, to forbear further hostilities, and even to pardon her son, provided he should return to his duty. Arran accordingly submitted; but the public tranquillity was not thus restored. An association, at the head of which was the earl of Moray, the king's natural brother, had been formed against the earl of Huntly. That nobleman was too well attended to fear any danger by day; but his enemies found means to introduce some armed troops in the night-time into Edinburgh. On this a fierce skirmish ensued, in which some were killed on both sides; but farther bloodshed was prevented by the regent, who confined all the lords in prison till he had brought about a general reconciliation. One Hay, who had been very active in stirring up the quarrels, was banished to France; and only the earl of Hume now continued in arms.

416 The queen goes to England.

417 Her husband submits to the regent.

An. 1515. 418 Rebellion and commotions in different places.

An. 1516.

In 1516 died the young duke of Rothesay; an event which brought the regent one degree nearer the crown, so that he was declared heir in case of the demise of young James. Negociations were then entered into about prolonging the truce which at that time subsisted with England; but Henry insisting on a removal of the regent from his place, they were for the present dropped.

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dropped. Finding, however, that he could neither prevail on the parliament as a body to dismiss the regent, nor form a party of any consequence against him, he at last consented to a prolongation of the truce for a year.

An. 1517.

419 The earl of Hume put to death.

In 1517, the affairs of the regent requiring his presence in France, he resolved, before his departure, to remove the earl of Hume, who, as we have seen, alone continued to disturb the public tranquillity. Under pretence of settling some differences which still remained with England, he called a convention of the nobility; and sent special letters to the earl of Hume and his brother to attend, on account of their great knowledge in English affairs. Both of them imprudently obeyed the summons, and were seized and executed as soon as they arrived at Edinburgh. Whatever occasion there might be for this severity, it alienated the affections of the people to such a degree, that the regent could scarcely get the place filled up which Lord Hume had possessed. That of lord warden of the marches he at last gave to his French favourite La Beauté, called by historians Sir Anthony D'Arcy. The post of lord chamberlain was given to Lord Fleming. Soon after this, the regent levied an army, on pretence of repressing some disturbances on the borders. These being speedily quelled, he seized on his return the earl of Lenox, and forced him to deliver up his castle of Dumbarton, not choosing to leave it, during his intended absence in France, in the custody of a nobleman of suspected fidelity; and from similar motives, he afterwards took him with him on his departure for the continent. He then procured himself to be nominated ambassador to France, in which character he left the kingdom; having committed the government to the archbishops of St Andrews and Glasgow, the earls of Arran, Angus, Huntly, and Argyle, with the warden D'Arcy, on whom was his chief dependence.

420 The regent goes to France, and the queen returns to Scotland.

On the departure of the regent, the queen-mother left the English court; and arrived with a noble retinue at Berwick, on purpose to visit her son. Here she was received by her husband; for whom she had contracted an invincible aversion; either on account of his infidelities to her bed, or because he had deserted her in the manner already related. She suppressed her resentment, however, for the present, and accompanied him to Edinburgh. Here, in consequence of the proposals made by the regent, she demanded access to her son; but this was refused by D'Arcy. Lord Erskine, however, who was one of those to whom the care of the young king was committed, conveyed him to the castle of Craigmillar (where D'Arcy had no jurisdiction), on pretence that the plague was in Edinburgh; and there the queen was admitted; but this gave such offence to D'Arcy, that Lord Erskine was obliged to carry back the king to the castle of Edinburgh, where all further access was denied to his mother. In short, the behaviour of this favourite was on all occasions so haughty and violent, that he rendered himself universally odious; and was at last murdered, with all his attendants, in his way to Dundee, where he proposed to hold a court of justice.—His death was little regretted; yet his murderers were prosecuted with the utmost severity, and several persons of distinction declared rebels on that account.

Meanwhile, the regent was treated with high marks of distinction in France. The king showed him the greatest respect, promised to assist in establishing his authority in Scotland, and solemnly confirmed the ancient league between the two kingdoms. Soon after, the earl of Lenox arrived from France, with assurances of protection and assistance from the king, who was highly pleased with the zeal of the governors in punishing D'Arcy's murderers; and 500 soldiers arrived with him, to reinforce the garrisons, especially that of Dunbar.

421 The queen attempts to divorce her husband.

An. 1519.

All this time the queen-mother continued at Edinburgh, employing herself in attempts to procure a divorce from her husband, under pretence of his having been previously contracted to another. The affairs of the kingdom again began to fall into confusion, and many murders and commotions happened in different parts of the country. The earl of Arran had the chief direction in the state; but the earl of Angus, notwithstanding the difference with his wife, had still great interest, and waited every opportunity to oppose him. This emulation produced an encounter at Edinburgh; in which victory declared for Angus, and 72 of the routed party were killed. This skirmish was fought on the 30th of April 1519, and has been known in Scots history by the name of *Cleanse the Causeway*.

422 Skirmish between the followers of the earl of Arran and Angus.

An. 1521.

On the 19th of November 1521, the regent returned from France. He found the kingdom in great disorder. The earl of Angus domineered in the field, but his antagonists outvoted his party in the parliament. The queen-mother, who had fixed her affections on a third husband, hated all parties almost equally; but joined the duke of Albany, in hopes of his depriving the other two of their power. This happened according to her expectation; and she was with the regent when he made a kind of triumphal entry into Edinburgh, attended by a number of persons of the first rank.—The earl of Angus was now summoned to appear as a criminal; but his wife intercedes for him, not out of any remains of affection, but because he gave her no opposition in the process of divorce which was depending between them.

An. 1522.

423 War with England.

—In the mean time, Henry VIII. of England, perceiving that the Scots were entirely devoted to the French interest, sent a letter full of accusations against the regent, and threats against the whole nation, if they did not renounce that alliance. No regard being paid to these requisitions, Lord Dacres was ordered to proclaim upon the borders that the Scots must stand to their peril if they did not accede to his measures by the first of March 1522. This producing no effect, Henry seized the effects of all the Scots residing in England, and banished them his dominions, after marking them, according to Bishop Leslie, with a cross, to distinguish them from his other subjects. A war was the unavoidable consequence of these proceedings; and, on the 30th of April, the earl of Shrewsbury, Henry's steward of the household, and knight of the Garter, was appointed commander in chief of the army that was to act against the Scots; and, in the mean time, Lord Dacres made an inroad as far as Kelso, plundering and burning wherever he came.

424 The Scots refuse to invade England.

The regent ordered his army to rendezvous at Roslin; but the Scots, remembering the disaster at Flodden, showed an extreme aversion to the war, and even declared to the regent, that though they would defend themselves in case they were attacked, they would not

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not engage in a French quarrel. The regent remonstrated, but without effect; and as the malcontents continued obstinate, he was in danger of being left by himself, when the queen-mother interposed, and prevailed with Lord Dacres to agree to a conference, the event of which was a renewal of the negociations for peace.

425 The regent goes to France for assistance.

The regent perceiving, by the disgrace of this expedition, that he had lost his former popularity, determined to revenge himself; and therefore told those in whom he could confide, that he was about to return to France, whence he should bring such a force by sea and land, as should render it unnecessary for him again to ask leave of the Scots to invade England. Accordingly he embarked for France on the 25th of October, but publicly gave out that he would return the ensuing August.

426 The English resolve to intercept him.

On the regent's arrival in France, he made a demand of 10,000 foot and 5000 horse for carrying on the war against England; but the situation of Francis did not then allow him to spare so many at once, though he was daily sending over ships with men, ammunition, and money, for the French garrisons in Scotland. At last it was publicly known in England that the regent was about to return with a strong fleet, and 4000 of the best troops in France; on which Henry determined, if possible, to intercept him. Sir William Fitz-Williams, with 36 large ships, was ordered to block up the French squadron in the harbour of Finhead; Sir Anthony Poyntz cruized with another in the western seas, as Sir Christopher Dow and Sir Henry Shireburn did in the northern with a third squadron. The duke of Albany, being unable to cope with Fitz-Williams, was obliged to set out from another port with 12 ships, having some troops on board. They fell in with Fitz-Williams's squadron; two of their ships were sunk, and the rest driven back to Dieppe. Fitz-Williams then made a descent at Treport, where he burnt 18 French ships, and returned to his station off Finhead. By this time the French had given the duke such a reinforcement as made him an overmatch for the English admiral, had the men been equally good; but the regent had no dependence on French sailors when put in competition with the English. Instead of coming to an engagement, therefore, as soon as Fitz-Williams appeared, he disembarked his soldiers, as if he had intended to delay his expedition for that year; but a storm soon arising, which obliged the English fleet to return to the Downs, the regent took that opportunity of reimbarking his men, and, sailing by the western coasts, arrived safe in Scotland.

427 He escapes their vigilance, and lands in Scotland.

428 Cruel devastations of the English. An. 1523.

All this time the earl of Surry had been carrying on the most cruel and destructive war against Scotland; insomuch that, according to Cardinal Wolsey, "there was left neither house, fortress, village, tree, cattle, corn, nor other succour for man," in the districts of Tweddale and March. The regent's return did not immediately put a stop to these devastations; for the intestine divisions in Scotland prevented him from taking the field. His party was weakened by his long absence, and the queen-mother had been very active in strengthening the English interest. A parliament was called in 1523, in which it was debated, Whether peace or war with England should be resolved on? and the determinations of this parliament were evidently on the worse side of the question. Henry was at this time so well disposed to cultivate a friendship with Scotland, that he offered to James his eldest sister Mary in marriage; but the Scots, animated by the appearance of their French auxiliaries, and corrupted by their gold, rejected all terms, and resolved on war. However, when the army was assembled, and had advanced to the borders, he found the same difficulty he had formerly experienced; for they peremptorily refused to enter England. With great difficulty he prevailed with part of the army to pass the Tweed; but not meeting with success, he was obliged to return to Scotland, which at this time was divided into four factions. One of these was headed by the regent, another by the queen, a third by the earl of Arran, and a fourth by the earl of Angus, who had lived as an exile under Henry's protection. Had it been possible for the earl of Angus and his wife to be reconciled to each other, it would have been much for the interest of the kingdom; but all the art even of Cardinal Wolsey could not effect this reconciliation. At last, the duke of Albany, finding all parties united against him, resigned his office of regent of Scotland. On the 14th of March that year, he went on board one of his own ships for France, whence he never returned to Scotland. He did not indeed make a formal abdication of his government; but he requested the nobility, whom he convened for that purpose, to enter into no alliance with England during his absence, which he said would continue no longer than the first of September following; to make no alteration in the government; and to keep the king at Stirling.

429 Henry offers peace, which is rejected.

430 The duke of Albany resigns his office of regent.

The nobility, who were impatient for the absence of the regent, readily promised whatever he required, but without any intention of performing it: nor, indeed, was it in their power to comply; for it had been previously determined that James himself should now take the administration into his own hands. According to Buchanan, the regent had no sooner returned to France than Scotland relapsed into all the miseries of anarchy. The queen-dowager had the management of public affairs, but her power was limited. The earl of Arran, apprehending danger from the English, entered into the views of the French party. The queen-mother's dislike to her husband continued as great as ever, which prevented an union among those who were in the English interest; and Wolsey took that opportunity of restoring the earl of Angus to all his importance in Scotland.—The queen-mother, therefore, had no other means left to keep herself in power, than to bring James himself into action. On the 29th of July, therefore, he removed from Stirling to the abbey of Holyroodhouse; where he took on himself the exercise of government, by convoking the nobility, and obliging them to swear allegiance to his person a second time. The truce with England was now prolonged, and the queen's party carried all before them. On the very day in which the last truce was signed with England, the earl of Angus entered Scotland. He had been invited from his exile in France into England, where he was caressed by Henry, who disregarded all his sister's intreaties to send him back to France, and now resolved to support him in Scotland. Yet, though his declared intention in sending the earl to Scotland was, that the latter might balance the French party there, the king enjoined him to sue,

An. 1524.

431 James takes on himself the government.

432 The earl of Angus returns to Scotland.

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sue, in the most humble manner, for a reconciliation with his wife, and to co-operate with the earl of Arran, who now acted as prime minister, as long as he should oppose the French party. On his return, however, he found himself excluded from all share in the government, but soon found means to form a strong party in opposition to Arran. In the mean time, ambassadors were sent to the court of England, in order to bring about a lasting peace between the two nations. At the same time a match was proposed between the young king of Scotland and Henry's daughter. This had originally been a scheme of Henry himself; but the emperor Charles V. had resolved to outbid him, by offering James a princess of his own family, with an immense treasure. The ambassadors arrived at London on the 19th of December, and found Henry very much disposed both to the peace and to the match. Commissioners were appointed to treat respecting it; but they were instructed to demand, by way of preliminary, that the Scots should absolutely renounce their league with France, and that James should be sent for education to England till he should be of a proper age for marriage. The Scottish commissioners declared, that they had no instructions respecting these points: but one of them, the earl of Cassilis, offered to return to Scotland, and bring a definitive answer from the three estates; and in the mean time the truce was prolonged to the 15th of May 1525. On his arrival at Edinburgh, he found the earl of Angus the leading man in parliament; by whose influence it was determined that the Scots should renounce their league with France, and substitute in place of it a similar league with England; and that the king should be brought up at the English court till he was of an age proper for marriage: but at the same time they required of Henry to break off all engagements with Charles V., who was the bitter enemy of Francis, and at that time detained him prisoner. To this the English monarch returned but a cool reply, being then engaged in a number of treaties with the emperor, among which one was concerning the marriage of the princess Mary with his imperial majesty himself; however, before Cassilis returned, a truce of two years and a half was concluded between England and Scotland.

433 Negociations for peace with England.

434 The earl of Angus comes into power. An. 1525.

Now, however, the queen-mother, though she had always been a warm advocate for an alliance between the two nations, disliked the means of bringing it about.—She saw her husband's party increasing every day in power; so that now she had no other resource but to keep possession of the king's person, whom she removed to the castle of Edinburgh. Being now under the necessity of convening a parliament, it was resolved to hold it within the castle; but this being an unconstitutional measure, gave a pretext to the earl of Arran and his party to complain of the innovation. They began with remonstrances; but finding these ineffectual, they formed a blockade of the castle with 2000 men, and cut off all communication with the town by means of trenches. As no provisions could be introduced into the castle, the queen ordered some of the cannon to be turned against the town, in order to force the citizens to terminate the blockade. Several shots were fired: but when all things appeared ready for a civil war, matters were compromised, though in such an imperfect manner as left very little room to hope for perfect tranquillity. It was agreed, that the king should remove out of the castle of Edinburgh to the palace of Holyroodhouse; from which he should repair with all possible magnificence to his parliament, in the house where it was commonly held; and there a termination was to be put to all differences. This agreement was signed on the 25th of February 1526. The parliament accordingly met, and the king's marriage with the princess of England was ratified; but no mention was made of the king's being sent for his education into that country; on the contrary, he was committed to the care of eight lords of parliament. These were to have the custody of the king's person, every one his month in rotation, and the whole to stand for the government of the state; yet with this limitation, "that the king, by their counsel, should not ordain or determine any thing in great affairs to which the queen-dowager, as princess and dowager, should not give her consent." This partition of power, by giving the queen-dowager a negative in all public matters, soon threw every thing into confusion. The earl of Angus, by leading the king into various scenes of pleasure and dissipation, so gained the ascendency over him, that he became almost totally guided by him. The queen-mother, perceiving that she could not have access to her son, without at the same time being in company with her husband, whom she hated, retired suddenly with her domestics to Stirling. Thus the king was left under the sole tuition of the earl of Angus, who abused his power, engrossing all the places of honour or profit. The archbishop of St Andrew's having now joined the queen's party, advised her to make a formal demand upon her husband, that the order of government which had been settled by the last parliament should take place, and that under a penalty he should set the king at liberty. To this the earl answered by a kind of manifesto drawn up by his brother; in which he declared, that "the earl of Angus having been so highly favoured by his good uncle the king of England, and that James himself being under great obligations to him, neither the queen nor the other lords need be in any pain about him, as he chose to spend his time with the earl of Angus rather than with any lord in the kingdom." James himself, however, had sufficient discernment to perceive, that, notwithstanding all the fair pretences of the earl of Angus, he was in fact no better than his prisoner; and resolved to attempt the recovery of his liberty. The earls of Argyle and Arran had for some time retired from court, where they had no share in the administration, and were living on their own estates; but the earl of Lenox dissembled his sentiments so well, that he was suspected neither by the earl of Angus, nor any of the Douglas family, who were his partisans. The king being gained upon by his insinuating behaviour, opened his mind to him, and requested his assistance against such treacherous keepers. At the same time he sent letters to his mother, and the heads of her party, by some of his domestics whom Lenox had pointed out, intreating them to remove him from the earl, and not suffer him any longer to remain under his imperious jurisdiction; adding, that if this could not be done by any other means, they should use force of arms.

435 Is opposed by the queen-mother,

436 who is besieged in Edinburgh castle.

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An. 1526.

437 Marriage of James with an English princess resolved on.

438 He is left in the hands of the earl of Angus.

439 Attempts to recover his liberty.

On receiving this letter, the queen-mother and her party assembled their forces at Stirling, and without loss of time began their march for Edinburgh. Angus, on the other hand, prepared to oppose them with vigour, but

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440 Is indisposed.

but at the same time to carry along with him his royal charge. This resolution being made known to the queen-mother, she was so much concerned for the safety of her son, that the whole party disbanded themselves; and thus the authority of the earl of Angus seemed to be more established than ever. Nothing, indeed, was now wanting to render him despotic but the possession of the great seal, which the archbishop of St Andrew's had carried with him to Dunfermline. As no deed of any consequence could be executed without this, he prevailed on the king to demand it by a special message; in consequence of which, the archbishop was obliged to relinquish it. About this time the divorce which had been so long in agitation between the queen-mother and the earl of Angus actually took place; and this, no doubt, increased the dislike of James to his confinement, while the imprudence of Angus daily gave fresh reason of disgust. As Angus knew that he had no firm support but in the attachment of his followers to his person, he suffered them to rob and plunder the estates of his opponents without mercy. These, again, did not fail to make reprisals; so that, towards the end of the year 1526, there was scarcely any appearance of civil government in Scotland. Thus the court became almost totally deserted; every nobleman being obliged to go home to defend his own estate. Even Angus himself shared in the common calamity, and hence was frequently obliged to leave the king to the custody of Lenox. To this nobleman the king now made the most grievous complaints, and charged him to contrive some plan for his escape. Lenox accordingly recommended to him the baron of Buccleugh, who was very powerful in the southern parts, and a violent enemy to Angus and the whole family of Douglas. To him he gave instructions to foment the disorders in the southern parts to such a degree as to require the king's personal presence to compose them. Buccleugh was then to attack the party, and take the king by force from the Douglases. This scheme was put in execution, but Buccleugh had the misfortune to be defeated; so that the attempt proved abortive, and James found himself in a worse situation than before. After this attempt, however, as the earl of Angus could not but know that Lenox had been accessory to it, the former behaved towards him with such visible indifference, that Lenox openly declared against him, and advised the king to form a friendship with the archbishop of St Andrew's, in order to effect his liberty. This was accordingly done; but the interest of the archbishop and Lenox was overbalanced by that of Arran and the Hamilton family, whom the earl of Angus had now drawn over to his party. The earl of Lenox, however, having received powers from the king for that purpose, suddenly retired from court; and published a manifesto, inviting all loyal subjects to assist him in delivering the king from confinement. In consequence of this he was soon joined by a numerous army, with whom he advanced towards Edinburgh. Angus did not fail to assemble his adherents; and sent orders to the inhabitants of Edinburgh to take the field, with the king at their head. The citizens immediately put themselves under arms; but James, pretending to be indisposed, Sir George Douglas, brother to the earl of Angus, made him the following speech: "Sir, rather than our enemies should take you from us, we will lay hold of your person; and should you be torn in pieces in the struggle, we will carry off part of your body." Upon this speech, which James never forgot, he mounted his horse and set forward to Linlithgow, but with a very slow pace; insomuch that Sir George Douglas, afraid of not coming in time to succour his brother, made use of many indecent expressions and actions to push James on to the field of battle. Three expresses arrived from the earl of Angus; the first informing his brother that he was about to engage with a superior army; the second, that Angus was engaged with a division of Lenox's army, commanded by the earl of Glencairn; and that Lenox himself was engaged with the Hamiltons. The third informed him that Lenox, if not actually defeated, was on the point of being so. Upon receiving this last news, James hastened to the field of battle, that he might save Lenox, and put an end to the slaughter.—But he came too late: for the royal party was already defeated with great slaughter; and Lenox himself, after being wounded and taken prisoner, was murdered by Sir James Hamilton.

441 The queen-mother divorces her husband.

442 The baron of Buccleugh attempts to rescue the king, but is defeated.

443 Another attempt by Lenox. An. 1527.

444 Who is defeated and killed.

On the night of the battle, the king was removed to Linlithgow; and though he was under the greatest grief for the fate of Lenox, the behaviour of the Douglases struck him with such terror that he dissembled his sentiments. The earl of Angus led his victorious troops into Fife, in hopes of surprising the queen-mother and the archbishop of St Andrew's. The queen-mother, on the news of his approach, fled, with her new husband Henry Stuart, brother to Lord Evandale, to Edinburgh, and both were admitted into the castle. The archbishop fled to the mountains, where he was obliged to keep cattle as a shepherd. Angus, after having plundered the castle of St Andrew's and the abbey of Dunfermline, returned in triumph to Edinburgh, where he prepared to besiege the castle: but the queen-mother, hearing that her son was among the number of the besiegers, ordered the gates of the castle to be thrown open, and surrendered herself and her husband prisoners to James, who was advised to confine them to the castle. After these repeated successes, the earl of Angus established a kind of court of justice, in which he prosecuted those who had opposed him, among whom was the earl of Cassilis. He was offered by Sir James Hamilton, natural son of the earl of Arran, the same who had murdered Lenox, an indemnity if he would own himself a vassal of that house; but this condition was rejected. Being called to his trial, and accused of having taken arms against the king, a gentleman of his name and family, who was his advocate, denied the charge, and offered to produce a letter under James's own hand, desiring him to assist in delivering him from his gaolers. This striking evidence confounded the prosecutor so much, that the earl was acquitted; but on his return home he was way-laid and murdered by one Hugh Campbell, at the instigation of Sir James Hamilton.

445 The queen-mother and archbishop obliged to fly.

446 Trial and murder of the earl of Cassilis.

During these transactions in the south, many of the Highland clans were perpetrating the most horrid scenes of rapine and murder, which also prevailed in some parts of the Lowlands. The state of the borders was little better than that of the Highlands; but it engaged the attention of Angus more, as he had great interest in these parts. Marching, therefore, against the banditti which infested these districts, he soon reduced them to subjection. His power seemed now to be firmly established,

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447 James escapes from his confinement.

blished, insomuch that the archbishop of St Andrew's began to treat with Sir George Douglas, to whom he offered lucrative leases and other emoluments if he would intercede with the regent, as Angus was called in his favour. This was readily agreed to; and the archbishop was allowed to return in safety to his palace about the same time that Angus returned from his expedition against the borderers. Nothing was then seen at court but festivities of every kind, in which the queen-mother who was now released from her confinement, took part; and she was afterwards suffered to depart to the castle of Stirling; which Angus, not considering its importance, had neglected to secure. In the mean time the archbishop invited the Douglases to spend some days with him at his castle; which they accordingly did, and carried the king along with them. Here James dissembled so well, and seemed to be so enamoured of his new way of life, that Angus thought there could be no danger in leaving him in the hands of his friends, while he returned to Lothian to settle some public as well as private affairs. Having taken leave of the king, he left him in the custody of his uncle Archibald, his brother Sir George, and one James Douglas of Parkhead, captain of the gaurds who watched his majesty on pretence of doing him honour. The earl was no sooner gone than the archbishop sent an invitation to Sir George Douglas, desiring him to come to St Andrew's, and there put the last hand to the leases, and finish the bargains that had been spoken off between them. This was so plausible, that he immediately set out for St Andrew's; while his uncle the treasurer went to Dundee. James thinking this to be the best opportunity that ever presented itself for an escape, resolved to avail himself of it at all events; and found means, by a private message, to apprise his mother of his design. It was then the season for hunting and diversion, which James often followed in the park of Falkland: and calling for his forester, he told him, that as the weather was fine, he intended to kill a stag next morning, ordering him at the same time to summon all the gentlemen in the neighbourhood to attend him with their best dogs. He then called for his chief domestics, and commanded them to get his supper early, because he intended to be in the field by day-break; and he talked with the captain of his guard of nothing but the excellent sport he expected next morning. In the mean time, he had engaged two young men, the one a page of his own, the other John Hart, a helper about his stables, to attend him in his flight, and to provide him with the dress of a groom for a disguise. Having formally taken leave of his attendants, charging them to be ready early in the morning, and being left alone, he stole softly out of his bed-chamber, went to the stable unperceived by the gaurds, dressed himself in his disguise; and he and his companions mounting the three best horses there, galloped to Stirling castle; into which, by the queen's appointment, he was admitted soon after day-break. He commanded all the gates to be secured; and the queen having previously prepared every thing for a vigorous defence, orders were given that none should be admitted into the castle without the king's permission.

About an hour after the king's escape from Falkland, Sir George Douglas returned; and being assured that his majesty was asleep, he went to bed. It appears that James had been seen and known in his flight; for in the morning the bailiff of Abernethy came post-haste to inform Sir George that the king had passed Stirling bridge. They had, however, some glimmering hope that the king might be gone to Bambrigh: but that surmise was soon found to be false; and an express was despatched, informing Angus of all that had happened. The earl quickly repaired to Falkland, where he and his friends came to a resolution of going to Stirling, and demanding access to the king.

448 James prepares to revenge himself.

James by this time had issued letters to the earls of Huntly, Argyle, Athol, Glencairn, Menteith, Rothes, and Elginton; the lords Graham, Livingston, Lindsay, Sinclair, Ruthven, Drummond, Evandale, Maxwell, and Semple. Before all of them could arrive at Stirling, the earl of Angus and his friends were upon their journey to the same place; but were stopped by a herald at arms, commanding them on their allegiance not to approach within six miles of the king's residence. This order having sufficiently intimated what they were to expect, the earl deliberated with his party how he should proceed. Some of them were for marching on and taking the castle by surprise: but that was found to be impracticable, especially as they had no artillery. The earl and his brother therefore resolved to make a show of submission to the king's order; and they accordingly went to Linlithgow. By this time all the nobility already mentioned, and many others, had assembled at Stirling; and James calling them to council, inveighed against the tyranny of the Douglases with an acrimony that sufficiently discovered what pain it must have given him when he was obliged to bear it in silence. He concluded his speech with these words: "Therefore I desire, my lords, that I may be satisfied of the said earl, his kin, and friends. For I vow that Scotland shall not hold us both, while I be revenged on him and his."

The result of the council's deliberation was that proclamation should be made, renewing the order for the Douglases not to approach the court, and divesting the earl of Angus and his brother of all their public employments. In the mean time, such was the moderation of the assembly, that by their advice James ordered the earl to retire to the north of the Spey till his pleasure should be known; but his brother was commanded to surrender himself a prisoner in the castle of Edinburgh, to take his trial in a very full parliament (all the members being summoned to attend), to be held in that city next September. The earl and his brother considered compliance with these conditions as a prelude to their destruction; and resolved to justify their treasons by still greater excesses, in surprising the town of Edinburgh, and holding it against the king and parliament, before the latter could assemble. Historians have not done that justice to the proceedings of the royal party on this occasion which they deserve. The management of the king's escape, his reception into Stirling, the fortifying that castle, and the ready obedience of his great nobility, some of whom attended him with their followers before they received any summonses for that purpose, are proofs of wise and spirited deliberations. Their conduct at this time was equally consistent with the same plan of foresight.

It was naturally to be supposed that the Douglases, who remained assembled in a numerous body, would

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449 His enemies disappointed in their designs.

make the attempt already mentioned; but the royalists had the precaution to despatch the lord Maxwell and the baron of Lochinvar, with a body of troops, to take possession of the town, till James could arrive with 2000 forces to their relief. Maxwell and Lochinvar made such despatch, that they were in possession of the town when the Douglases appeared before it, and repulsed them; while a most terrible storm had scattered the troops under James before he could come to their assistance, so effectually, that, being left almost without attendants, his person might have been taken by the smallest party of the enemy. On the retreat of the Douglases from Edinburgh, the parliament met; and none of them appearing in pursuance of their summons, the earl of Angus, his brother Sir George Douglas, his uncle Archibald Douglas, and Alexander Drummond of Carnock, with some of their chief dependants, were indicted, and their estates forfeited, for the following offences: "The assembling of the king's lieges, with intention to have assailed his person; the detaining of the king against his will and pleasure, and contrary to the articles agreed upon, for the space of two years and more; all which time the king was in fear and danger of his life." We know of no advocate for the earl and his friends but one Bannatyne, who had the courage to plead their cause against those heinous charges; and so exasperated were both the king and parliament against them, that the former swore he never would forgive them, and the latter that they never would intercede for their pardon. Thus, it was not deemed sufficient simply to declare their resolutions; but the solemnity of oaths was added, with an intention to discourage the king of England from continuing the vigorous applications he was every day making, by letters and otherwise, for the pardon of Angus; and, to exclude all hopes of that kind, James created his mother's third husband (to whom she had been married for some time) Lord Methven, and gave him the direction of his artillery.

450 They are degraded and their estates forfeited.

The disgrace and forfeiture of the Douglases having created many vacancies in the state, Gavin Dunbar, archbishop of Glasgow, and tutor to the king, was nominated lord chancellor, though but indifferently qualified for a post which ought to have been filled by an able statesman; and Robert Carncross, a person (says Buchanan) more eminent for wealth than virtue, was made treasurer: but this last was soon after displaced, being suspected of favouring the Douglases; and Robert Barton, one of the king's favourites, was appointed to succeed him. The Douglases still kept their arms; and being joined by a great number of outlaws and robbers in the south, they ravaged all the lands of their enemies, carrying their devastations to the very gates of Edinburgh. A commission of lieutenancy was offered to the earl of Bothwell to act against those rebels: but he declining it, it was accepted by the earl of Argyle and Lord Hume, who did great service in protecting the country from the outlaws. Several villages, however, in the neighbourhood of Edinburgh, were burnt; and all the provisions which the Douglases could collect were carried off to their castle of Tantallon, which now served as their head-quarters, and was threatened with a siege.

451 They ravage the southern parts.

It is remarkable, that the castle of Dunbar remained still in the hands of the duke of Albany's garrison, who recognised no master but him. The place was well stored with artillery of all kinds; and lying in the neighbourhood of Tantallon, it was easy to transport them to the siege: but James thought he had no right to make use of them without the consent of one Maurice, governor of the castle. Having summoned, by proclamation, the inhabitants of Fife, Angus, Strathern, Stirlingshire, Lothian, Merse, and Teviotdale, to be ready to compear at Edinburgh on the 10th of December, with 40 days victuals, to assist in the siege, he sent three noblemen to borrow artillery from Maurice, and to remain as pledges for the safe delivery of the same; and the several pieces required were accordingly sent him. This delicacy is the more remarkable, as we are told that the duke of Albany had given orders that every thing in his castle should be at the king's service. However unanimous the parliament might appear against the Douglases, James was but ill seconded in this attempt. This proceeding, in a country where the Douglases had so many connexions, carried with it an appearance of cruelty, and a thirst of revenge, especially as James had chosen such a season of the year for carrying on the siege. In short, after battering the place for some days, and losing one Falconer, his chief engineer, the king was obliged to abandon his enterprise, or rather to turn the siege into a blockade, with no great credit to his first military attempt in the field. Some historians intimate, that Angus found means to corrupt the other engineers; but we find, that before this time, a negociation was going forward between James and the king of England; the nature of which proves that the former was now rendered more placable towards the Douglases; and this was the true reason why the siege was suspended.

452 James is disappointed in his scheme of revenge.

The truce between Scotland and England was now near expiring; and Henry, under that pretence, gave a commission to the prior of Durham, Thomas Magnus, Sir Anthony Ughtred, captain of the town and castle of Berwick, William Frankelyn chancellor of Durham, and Sir Thomas Tempest. James seems to have been in no haste to enter upon this negociation, because he understood that the English commissioners were privately instructed to insist upon the Douglases being restored to their esates and dignities. England was at that time the principal ally of Francis against the emperor; and this gave a pretence to Francis to interpose so far in favour of the Douglases, that he brought James to consent to a preliminary negociation for their obtaining at least a secure retreat in England. This was at last complied with.

453 The Douglases obtain a secure retreat in England.

James being now delivered from all dread of the Douglases, and under no controul from any party, showed excellent dispositions for government. Finding that the borderers were by no means pleased with the late treaty, and that they were renewing their depredations, he resolved to strike at the root of an evil which had so long proved disgraceful and dangerous to his ancestors, by giving no quarter to the chiefs of these robbers, whose principal residence was in Liddesdale. This was the more necessary, as their daring attempts had exasperated the English so much, that they had actually burnt a town in Teviotdale; and had killed one Robert Kerr, a man of some consequence. Two of the chiefs of the Scotch borderers were Cockburn of Kenderlaw, and Adam Scott, commonly called *king of the thieves*. Both of

454 James reduces the borderers.

of them were barons; and had been so inured to the practice, that they thought there was no crime in robbing; they therefore appeared publicly in Edinburgh; where James ordered them to be apprehended, tried, and hanged. He next proceeded with great firmness against many noblemen and principal gentlemen, who were only suspected of being disaffected to the late peace. All of them had behaved with great loyalty, and some of them had done him the most important services. Of this number were the earl of Hume, the lord Maxwell, with the barons of Buccleuch, Farniherst, Polwart, Johnston, and Mark Kerr. Though we know nothing particularly of what was laid to the charge of these noblemen and gentlemen, yet so zealous was James for the impartial administration of justice, that he ordered them all with many other chief gentlemen of the borders, to be sent to prison; where they lay till they entered into recognisances themselves, and found bail for their good behaviour.

Of all the party of the Douglases, none of any note excepting Alexander Drummond of Carnock was suffered to return home, at the earnest request of the ambassadors, and the treasurer Barton. This lenity was of very little consequence; for James having appointed the earl of Murray to be sole warden of the Scotch marches, with power to treat with the earl of Northumberland, their conferences had broken off on account of fresh violences happening every day; and some information he had received from them, had prevailed with James to imprison the noblemen and gentlemen already mentioned. He now resolved to attempt in person what his predecessors and himself had so often failed to accomplish by their deputies. As he was known to be violently addicted to hunting, he summoned his nobility, even on the north of the Forth, to attend him with their horses and dogs; which they did in such numbers, that his hunting retinue consisted of above 8000 persons, two-thirds of whom were well armed. This preparation gave no suspicion to the borderers, as great hunting-matches in those days commonly consisted of some thousands; and James having set out upon his diversion, is said to have killed 540 deer. Among the other gentlemen who had been summoned to attend him, was John Armstrong of Gilnockhall. He was the head of a numerous clan, who lived in great pomp and splendour upon the contributions under which they laid the English on the borders. He was himself always attended by 26 gentlemen on horseback, well mounted and armed, as his body guard. Having received the king's invitation, he was fond of displaying his magnificence to his sovereign; and attiring himself and his guard more pompously than usual, they presented themselves before James, from whom they expected some particular mark of distinction for their services against the English, and for the remarkable protection they had always given to their countrymen the Scots. On their first appearance, James, not knowing who he was, returned Armstrong's salute, imagining him to be some great nobleman; but upon hearing his name, he ordered him and his followers to be immediately apprehended, and sentenced them to be hanged upon the spot. It is said that James, turning to his attendants, asked them, pointing at Armstrong, "What does that knave want that a king should have, but a crown and a sword of honour?" Armstrong begged hard for his life; and offered to serve the king in the field with forty horsemen, besides making him large presents of jewels and money, with many other tempting offers. Finding the king inexorable, "Fool that I am (said he) to look for warm water under ice, by asking grace of a graceless face;" and then he and his followers submitted to their fate. These and similar executions restored peace to the borders.

455 Hangs Armstrong, a noted robber, with 26 of his followers.

456 State of the Scottish church at the beginning of the 16th century.

Hitherto we have confined ourselves chiefly to the civil transactions of North Britain, and have only incidentally noticed the ecclesiastical affairs. These are now, however, to claim a considerable share of our attention, as about this time the spirit of the reformed religion had extended itself to Scotland, where it soon made a most rapid progress.

We have seen, that for several centuries, the hierarchy of North Britain possessed no small degree of influence and power; but we have found few instances of any remarkable respect being paid to the supremacy of the Roman pontiff. The pope, indeed, as supreme head of the church, had long assumed the right of consecration, and this right, in the opinion of those ages, was undoubted, according to the established law of the Christian world. The spiritual jurisdiction of the pope was always acknowledged; but before the end of the 12th century, his temporal power was disputed, because it would have absorbed the sovereign right of independent princes. After many struggles, Pope Celestine III. in 1188, declared the church of Scotland to be *the daughter of Rome by special grace*, and to be immediately subject to the apostolic jurisdiction. This was considered by the Scottish clergy as a charter, by which they were emancipated from the claims of jurisdiction which had been brought by the English archbishops of York and Canterbury.

From the beginning of the 12th century we begin to meet with instances of national councils of the Scottish clergy, at which the pope's legates assisted; but still we find no authority assumed by the pope in temporal matters, before the reign of Alexander II. when the people of Scotland were excommunicated for engaging in hostilities with King John of England, then the adopted son of the church. This excommunication, indeed, produced but little effect, and during a reign which reflected glory on the king, and was productive of advantage to his kingdom, Alexander nearly established the independence of the Scottish church.

In the progress of papal usurpation, the court of Rome proceeded, from appropriating the revenues of the Scottish church, to the appointment of the Scottish bishops. This usurpation was first attended with success in 1259, when the pope appointed his own chaplain to the bishopric of Glasgow. The church of Scotland, however, to show her independence on papal authority, assembled a general council at Perth in 1269. This was called by one of their own bishops, who presided at its meetings, and by this assembly was enacted a body of canons, which remained the ecclesiastical code of Scotland till the epoch of the Reformation. Such councils continued to assemble from time to time for correcting clerical abuses, and maintaining the freedom of the Scottish church.

The right of presentation appears to have been exerted from the 12th century in North Britain, as it has always

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always been exerted in England. The bishops were named by the king, elected by their chapters, and consecrated by the pope, or by some of the other bishops. The king appointed the rural deans, and the chancellor of Scotland exercised the king's right of presentation to the smaller benefices. The barons enjoyed the right of presentation to those benefices which had arisen from their own munificence, or the piety of their ancestors. The bishops and abbots had acquired by the royal charters, or grants from the barons, the right of advowson over many churches, and from this right were deduced other privileges of great importance. *

* *Chalmers's Caledonia*, vol. i.

That form of popery which prevailed in Scotland was of the most bigotted and illiberal kind. Those doctrines which are most apt to shock the human understanding, and those legends which farthest exceed belief, were proposed to the people, without any attempt to palliate or disguise them; nor did they ever call in question the reasonableness of the one, or the truth of the other.

The power and wealth of the church kept pace with the progress of superstition; for it is the nature of that spirit to observe no bounds in its respect and liberality towards those whose character it esteems sacred. The Scottish kings early demonstrated how much they were under its influence, by their vast additions to the immunities and riches of the clergy. The profuse piety of David I. who acquired on that account the name of saint, transferred almost the whole crown lands, which were at that time of great extent, into the hands of ecclesiastics. The example of that virtuous prince was imitated by his successors. The spirit spread among all orders of men, who daily loaded the priesthood with new possessions. The riches of the church all over Europe were exorbitant; but Scotland was one of those countries wherein they had farthest exceeded the just proportion. The Scottish clergy paid one half of every tax imposed on land; and as there is no reason to think that in that age they would be loaded with any unequal share of the burden, we may conclude, that by the time of the Reformation, little less than one half of the property in the nation had fallen into the hands of a society, which is always acquiring, and can never lose.

The nature, too, of a considerable part of their property extended the influence of the clergy. Many estates throughout the kingdom held of the church; church lands were let in lease at an easy rent, and were possessed by the younger sons and descendants of the best families. The connexion between *superior* and *vassal*, between landlord and tenant, created dependences, and gave rise to a union of great advantage to the church; and in estimating the influence of the popish ecclesiastics over the nation, these, as well as the real amount of their revenues, must be attended to, and taken into the account.

This extraordinary share in the national property was accompanied with proportionable weight in the supreme council of the kingdom. At a time when the number of the temporal peers was extremely small, and when the lesser barons and representatives of boroughs seldom attended parliaments, the ecclesiastics formed a considerable body there. It appears from the ancient rolls of parliament, and from the manner of choosing the lords of articles, that the proceedings of that high court must have been, in a great measure, under their direction.

The reverence due to their sacred character, which was often carried incredibly far, contributed not a little towards the growth of their power. The dignity, the titles, and precedence of the popish clergy are remarkable, both as causes and effects of that dominion which they had acquired over the rest of mankind. They were regarded by the credulous laity as beings of a superior species; they were neither subject to the same laws, nor tried by the same judges. Every guard that religion could supply, was placed around their power, their possessions, and their persons; and endeavours were used, not without success, to represent them all as equally sacred.

The reputation for learning, which, however inconsiderable, was wholly engrossed by the clergy, added to the reverence which they derived from religion. The principles of sound philosophy, and of a just taste, were altogether unknown; in place of these were substituted studies barbarous and uninstructive; but as the ecclesiastics alone were conversant with them, this procured them esteem; and a very slender portion of knowledge drew the admiration of rude ages, which knew little. War was the sole profession of the nobles, and hunting their chief amusement; they divided their time between these: unacquainted with the arts, and unimproved by science, they disdained any employment foreign to military affairs, or which required rather penetration and address, than bodily vigour. Wherever the former were necessary, the clergy were entrusted, because they alone were properly qualified for the trust. Almost all high offices in civil government devolved, on this account, on them. To all this we may add, that the clergy being separated from the rest of mankind by the law of celibacy, and undistracted by those cares, and unincumbered with those burdens which occupy and oppress other men, the interest of their order became their only object, and they were at full leisure to pursue it.

The nature of their function gave them access to all persons and at all seasons. They could employ all the motives of fear and of hope, of terror and of consolation, which operate most powerfully on the human mind. They haunted the weak and the credulous; they besieged the beds of the sick and of the dying; they suffered few to go out of the world without leaving marks of their liberality to the church, and taught them to compound with the Almighty for their sins, by bestowing riches on those who called themselves his servants. * * *Robertson's Scotland*, book ii.

During the Scoto-Saxon period, there were in Scotland two archbishoprics, viz. those of St Andrews and Glasgow, and ten bishoprics, viz. those of Orkney, the Western islands, Galloway, Dunkeld, Moray, Brechin, Dunblane, Aberdeen, Ross, and Argyle or Lismore (N). To the archbishopric of St Andrews were attached eight deaneries, and nine to that of Glasgow.

457 Account of the Reformation.

The opinions of Luther had been propagated in Britain soon after his preaching in 1517. They had for some

(N) The bishopric of Edinburgh did not exist in that period, but was founded by Charles I.

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some years insensibly gained ground; and, when the contentions began between James and his nobility, were become formidable to the established religion. We have seen how James escaped from the hands of his nobles by means of the archbishop of St Andrew's. To the clergy, therefore he was naturally favourable; and as they naturally opposed the Reformation, James became a zealous persecutor of the reformed. On the other hand, the nobility having already opposed the king and clergy in civil affairs, did the same in those of religion. The clergy finding themselves unequal in argument, had recourse to more violent methods. Rigorous inquisitions were made after heretics, and fires were everywhere prepared for them.

458 Why James favoured the clergy.

459 Martyrdom of Patrick Hamilton.

The first person who was called on to suffer for the reformed religion was Patrick Hamilton abbot of Ferne. At an early period of life he had been appointed to this abbacy; and having imbibed a favourable idea of the doctrines of Luther, had travelled into Germany, where, becoming acquainted with the most eminent reformers, he was fully confirmed in their opinions. Upon his return to Scotland, he ventured to expose the corruptions of the church, and to insist on the advantages of the tenets which he had embraced. A conduct so bold, and the avidity with which his discourses were received by the people, gave an alarm to the clergy. Under the pretence of a religious and friendly conference, he was seduced to St Andrew's by Alexander Campbell, a Dominican friar, who was instructed to remonstrate with him on the subject of the reformation. The conversations they held only served to establish the abbot more firmly in his sentiments, and to inflame his zeal to propagate them. The archbishops of St Andrew's and of Glasgow, and other dignitaries of the church, constituting a court, called him to appear before them.

An. 1527.

The abbot neither lost his courage nor renounced his opinions. He was accordingly convicted of heretical pravity, delivered over to the secular arm, and executed in the year 1527. (o) This reformer had not attained the 24th year of his age. His youth, his virtue, his magnanimity, and his sufferings, all operated in his favour with the people. To Alexander Campbell, who insulted him at the stake, he objected his treachery, and cited him to answer for his behaviour before the judgement-seat of Christ. And this persecutor, a few days after, being seized with a frenzy, and dying in that condition, it was believed with the greater confidence, that Mr Hamilton was an innocent man and a true martyr.

460 Excites general indignation.

A deed so affecting, from its novelty and in its circumstances, excited throughout the kingdom an universal curiosity and indignation. Minute and particular inquiries were made into the tenets of Mr Hamilton. Converts to the new opinions were multiplying in every quarter, and a partiality to them began to prevail even among the Romish clergy themselves. Alexander Seton, the king's confessor, took the liberty to inveigh against the errors and abuses of Popery; to neglect, in his discourses, all mention of purgatory, pilgrimages, and saints; and to recommend the doctrines of the reformed. What he taught was impugned; and his boldness rising with contradiction, he defended warmly his opinions, and even ventured to affirm, that in Scotland there were no true and faithful bishops, if a judgment of men in this station is to be formed from the virtues which St Paul has required of them. A sarcasm so just, and so daring, inflamed the whole body of the prelacy with resentment. They studied to accomplish his destruction: and as Mr Seton had given offence to the king, whom he had exhorted to a greater purity of life, they flattered themselves with the hope of conducting him to the stake; but being apprehensive of danger, he made his escape into England.

An. 1533. 461 Henry Forest burnt;

In 1533, Henry Forest, a Benedictine friar, who discovered a propensity to the reformed doctrines, was not so fortunate. After having been imprisoned for some time in the tower of St Andrew's, he was brought to his trial, condemned, and led to the flames. He had said, that Mr Hamilton was a pious man, and a martyr; and that the tenets for which he suffered might be vindicated. This guilt was aggravated by the discovery that Friar Forest was in possession of a New Testament in the English language; for the priests esteemed a careful attention to the Scriptures an infallible symptom of heresy. A cruelty so repugnant to the common sense and feelings of mankind, while it pleased the insolent pride of the ecclesiastics, was destroying their importance, and exciting a general disposition in the people to adopt, in the fullest latitude, the principles and sentiments of the reformed.

An. 1534. 462 as also Gourlay and Straton;

The following year, James Beaton archbishop of St Andrew's, though remarkable for prudence and moderation, was overawed by his nephew and coadjutor David Beaton, and by his brethren the clergy. In his own person, or by commission granted by him, persecutions were carried on with violence. Many were driven into banishment, and many were forced to acknowledge what they did not believe. The more strenuous and resolute were delivered over to punishment. Among these were two private gentlemen, Norman Gourlay and David Straton. They were tried at Holyroodhouse before the bishop of Ross; and, refusing to recant, were condemned. King James, who was present, appeared exceedingly solicitous that they should recant their opinions; and David Straton, upon being adjudged to the fire, having begged for his mercy, was about to receive it, when the priest proudly pronounced, that the grace of the sovereign could not be extended to a criminal whom their law and determination had doomed to suffer.

463 with several others.

A few years after, the bishops having assembled at Edinburgh,

(o) His tenets were of the following import, and are enumerated in the sentence pronounced against him, "Man hath no free-will. Man is in sin so long as he liveth. Children, incontinent after their baptisme, are sinners. All Christians, that be worthie to be called Christians, do know that they are in grace. No man is justified by works, but by faith only. Good works make not a good man, but a good man doth make good works. And faith, hope, and charity, are so knit, that he that hath the one hath the rest; and he that wanteth the one of them wanteth the rest." *Keith, Hist. of the Church and State of Scotland, Appendix*, p. 3.

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Edinburgh, two Dominican friars, Killor and Beverage, with Sir Duncan Sympson a priest, Robert Forrester a gentleman of Stirling, and Thomas Forrest vicar of Dolour in Perthshire, were condemned to be consumed in the same fire.

An. 1539. At Glasgow, a similar scene was acted in 1539: Hieronymus Russel a Grey-friar, and a young gentleman of the name of Kennedy, were accused of heresy before the bishop of that see. Russel, when brought to the stake, displaying an undaunted demeanour, reasoned gravely with his accusers, and was only answered with reproaches. Mr Kennedy, who was not yet 18 years of age, seemed disposed to disavow his opinions, and to sink under the weight of a cruel affliction; but the exhortation and example of Russel awakening his courage, his mind assumed a firmness and constancy, his countenance became cheerful, and he exclaimed with a joyful voice, "Now, I defy thee, Death; I praise my God, I am ready."

464 Promotion of Cardinal Beaton.

James Beaton, the archbishop of St Andrew's having died about this time, the ambition of David Beaton, his coadjutor, was gratified in the fullest manner. He had before been created a cardinal of the Roman church, and he was now advanced to the possession of the primacy of Scotland. No Scottish ecclesiastic had ever been invested with greater authority; and the reformers had every thing to fear from so formidable an enemy.

465 His character.

The natural violence of his temper had fixed itself in an overbearing insolence, from the success which had attended him. His youth had been passed in scenes of political intrigue, which, while it communicated to him address and the knowledge of men, corrupted altogether the simplicity and candour of his mind. He was dark, crafty, and designing. No principles of justice were any bar to his schemes; nor did his heart open to any impressions of pity. His ruling passion was an inordinate love of power; and the support of his consequence depending only on the church of Rome, he was animated to maintain its superstitions with the warmest zeal. He seemed to delight in perfidiousness and dissimulation; he had no religion; and he was stained with an inhuman cruelty, and the most open profligacy of manners. In connexion with these defects, he possessed a persevering obstinacy in pursuing his measures, the ability to perceive and to practise all the arts which were necessary to advance them, and the allurements of ostentation and prodigality.

He was scarcely invested with the primacy, when he exhibited an example of his taste for magnificence, and of his aversion to the reformation. He proceeded to St Andrew's with an uncommon pomp and parade. The earls of Huntly, Arran, Marischal, and Montrose, with the lords Fleming, Lindsey, Erskine, and Seton, honoured him with their attendance; and there appeared in his train, Gavin archbishop of Glasgow and lord high chancellor, four bishops, six abbots, many private gentlemen, and a vast multitude of the inferior clergy. In the cathedral church of St Andrew's, from a throne erected by his command, he harangued concerning the state of religion and the church, to this company, and to a crowd of other auditors. He lamented the increase of heretics: he insisted on their audacity and contempt of order; he said, that even in the court of the sovereign too much attention was shown to them; and he urged the strong necessity of acting against them with the greatest rigour.

466 Sir John Borthwick impeached.

He informed this assembly, that he had cited Sir John Borthwick to appear before it, for maintaining tenets of faith hostile to the church, and for dispersing heretical books; and he desired that he might be assisted in bringing him to justice. The articles of accusation (p) were accordingly read against him; but he neither appeared in his own person, nor by any agent or deputy. He was found guilty; and the cardinal, with a solemnity calculated to strike with awe and terror, pronounced sentence against him. His goods and estate were confiscated; and a painted representation of him was burned publicly, in testimony of the malediction of the church, and as a memorial of his obstinacy and condemnation. It was ordained, that in the event of his being apprehended, he should suffer as a heretic, without hope of grace or mercy. All Christians, whether men or women, and of whatever degree or condition, were prohibited from affording him any harbour or sustenance. It was declared, that every office

(p) They are preserved by Archbishop Spotiswood, and display great liberality of mind, in a period when philosophy may be said to have been almost unknown in Scotland. They are thus detailed by this judicious writer.

1. "That he held the pope to have no greater authority over Christians than any other bishop or prelate had.
2. "That indulgences and pardons granted by the pope were of no force nor effect, but devised to abuse people, and deceive poor ignorant souls.
3. "That bishops, priests, and other clergymen, may lawfully marry.
4. "That the heresies, commonly called *heresies of England*, and their new liturgy, were commendable, and to be embraced of all Christians.
5. "That the people of Scotland are blinded by their clergy, and professed not the true faith.
6. "That churchmen ought not to enjoy temporalities.
7. "That the king ought to convert the rents of the church into other pious uses.
8. "That the church of Scotland ought to be governed after the manner of the English.
9. "That the canons and decrees of the church were of no force, as being contrary to the law of God.
10. "That the orders of the friars and monks should be abolished, as had been done in England.
11. "That he did openly call the pope *simoniac*, for that he sold spiritual things.
12. "That he did read heretical books, and the New Testament in English, and some other treatises written by Melancthon. Oecolampadius, and Erasmus, which he gave likewise unto others.
13. "The last and greatest point was, that he refused to acknowledge the authority of the Roman see, or be subject thereunto." *Hist. of the Church*, p. 70.

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fice of humanity, comfort, and solacement, extended to him, should be considered as criminal, and be punished with confiscation and forfeitures.

467 He flies into England.

Sir John Borthwick having been apprised of his danger, fled into England, where he was kindly received by Henry VIII., who employed him in negociations with the Protestant princes of Germany. Cardinal Beaton perceived with concern that this act of severity did not terrify the people. New defections from the church were announced to him. Andrew Cunningham, son to the master of Glencairn, James Hamilton, brother to Patrick Hamilton the martyr, and the celebrated George Buchanan the historian, were imprisoned upon suspicion of heresy; and if they had not found means to escape, would probably have perished at the stake. In this declining condition of Popery, the cardinal held many mournful consultations with the bishops. All their intrigues and wisdom were employed to devise methods to support themselves. The project of an inquisitorial court was conceived, and afforded a distant view of the extirpation of heretics. To erect this tribunal, they allured James V. with the hopes of the confiscation and spoils, which might enrich him, from the persecution and punishment of the reformed. He yielded to their solicitations, and gave them the sanction of his authority.

468 Sir James Hamilton appointed a kind of inquisitor.

A formal commission was granted, constituting a court of inquiry after heretics, and nominating for its president Sir James Hamilton of Fennard, natural brother to the earl of Arran. The officious assiduity of this man, his ambition, and his thirst of blood, were in a high degree acceptable to the clergy; and to this eminence their recommendation had promoted him. Upon the slightest suspicion he was allowed to call any person before him, to scrutinize his creed, and to absolve or to condemn him. A tribunal so dreadful could not have found a director more suited to it. He was in haste to fill the prisons of the kingdom with culprits, and was taking down in lists the names of all those to whom heresy was imputed by popular report, and whom the arts of malicious men had represented as the objects of correction and punishment. But, while he was brooding over mischief, and multiplying in fancy the triumphs of his wickedness, an unexpected turn of affairs presented Hamilton himself in the light of a criminal, and conducted him to the scaffold.

469 Projects the ruin of Patrick Hamilton's brother.

The brother of Mr Hamilton the martyr, to avoid persecution, had been obliged to go into banishment; but, by the intercession of his friends, he was permitted to return for a short time to his own country, that he might regulate the affairs of his family. He was connected with Sir James Hamilton; and, trusting to the ties of blood, ventured to prolong his stay beyond the period allowed him. This trespass was trivial. Sir James Hamilton being willing to give a signal example of severity, and by this means to ingratiate himself the more with the priesthood, took the resolution of making his own relation the victim of his power. Mr Hamilton, attentive to his personal security, and not unacquainted with the most private machinations of this inquisitor, despatched his son to the king, who was about to pass the Forth in a barge, and intreated him to provide for his safety, as Sir James Hamilton had conspired with the house of Douglas to assassinate him. James V. being at variance with the house of Douglas, had reasons of suspicion, and was disposed to believe every thing that is most flagitious of Sir James Hamilton. He instructed the young gentleman to go with expedition to Edinburgh, and to open the matter to the privy-council; and that he might be treated with the greater respect, he furnished him with the ring which he was accustomed to send to them on those important occasions which required their address and activity. Sir James Hamilton was apprehended and imprisoned. An accusation of having devised and attempted the king's death at different times was preferred against him. His defence appeared to be weak and unsatisfactory. A jury, which consisted of men of rank and character, pronounced him guilty; and being condemned to suffer the death of a traitor, he lost his head, and the quarters of his body were exposed upon the gates of the city of Edinburgh. The clergy, who could not prevent his trial and execution, regretted his death, but did not think of appointing a successor to him in their court of inquisition.

470 By whom he is accused of treason.

471 Condemned and executed.

In other respects, however, James showed great concern for the welfare of his people. Being dissatisfied with the ordinary administration of justice, he had recourse to the parliament of Paris for a model of the like institution in Scotland. Great objections lay against juries in civil matters, and to ambulatory courts of justice. The authority of the heritable jurisdictions was almost exclusive of all law; for though the king might preside in them, yet he seldom did so; and appeals before the council were disagreeable and expensive. The institution of the lords of articles threw too much weight into their scale, as no business could be transacted in parliament but what they allowed or permitted; and it was always in the power of the king to direct them as he pleased. The true source of the public grievances, in matters of property, lay in the disregard shown to the excellent acts which had past during the reigns of the first three James's, and which had not been sufficiently supported in the late reigns. The evil had gathered strength during the minority of James V.; and he resolved to establish a standing jury for all matters of law and equity (for, properly speaking, the court of session in Scotland is no more), with a president, who was to be the mouth of the assembly. On the 13th of May, 1532, as we find by a curious manuscript in the British museum, the lords of the articles laid before the parliament the proposition for instituting this court, in the following words: "Item, anent (concerning) the second artickel concerning the order of justice; because our sovereign lord is maist desirous to have an permanent order of justice for the universal of all his lieges; and therefore tendis to institute an college of cunning and wise men for doing and administration of justice in all civil actions: and therefore thinke to be chosen certain persons maist convenient and qualified yair (there), to the number of fifteen persons, half spiritual, half temporal, with an president."

472 James regulates the courts of justice.

An. 1532. 473 Origin of the court of session.

In the year 1533, hostilities were recommenced with England; but after some slight incursions on both sides, a truce again took place. The most remarkable transactions of this period, however, next to the religious persecutions already mentioned, were the negociations for the king's marriage. Indeed, there is scarcely any monarch mentioned in history who seems to have had a greater

An. 1533. 474 Negociations for the king's marriage.

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greater variety of choice, or whom it was more difficult to please. The situation of affairs on the continent of Europe, had rendered Scotland a kingdom of great consequence, as holding the balance between France, England, and the empire of Germany; and each of the rival powers endeavoured to gain the favour of James, by giving him a wife.—In 1534, King Francis offered him his daughter; and the match was strongly recommended by the duke of Albany, who was still living in France, and served James with great fidelity. The same year the Imperial ambassador arrived in Scotland, and presented, in the name of his master, the order of the Golden Fleece to James, who had already been invested with that of St Michael by Francis. At the same time, he offered him his choice of three princesses: Mary of Austria, the emperor's sister, and widow of Lewis king of Hungary; Mary of Portugal, the daughter of his sister Eleonora of Austria; or Mary of England, the daughter of Catharine and Henry. Another condition, however, was annexed to this proposal, viz. that, to suppress the heresies of the time, a council should be held for obviating the calamities which threatened the Christian religion. These proposals would have met with a more ready acceptance from James, had not his clergy, at this time, been disgusted with Charles, for allowing too great a latitude to the Protestants of Germany. James, in his answer, returned the emperor his acknowledgments in the most polite terms, for the splendid alliances he had offered. He mentioned the proposal of the council as being a measure rather to be wished for than expected; because it ought to be free and holy, and upon the model of the first councils; its members consisting of the most charitable, quiet, and disinterested part of the clergy. He said, that if such a council could be obtained, he would willingly send ecclesiastics to it; but if not, that every prince ought to reform the errors of doctrine, and the faults of the clergy, within his own dominions. He bewailed the obstinate conduct of his uncle in his divorce and marriage; and offered his best offices for effecting a reconciliation between him and the emperor, wishing that all the princes of Christendom would unite their arms against their common enemy the Turks. He hinted, very justly, that his Imperial majesty had offered more than he could perform; because his cousin, Mary of England, was not at his disposal. The ambassador replied, that his master, if persuasion failed, would compel Henry by force of arms to resign her. James answered this ridiculous declaration by observing, that the emperor then would be guilty of a breach of all laws both divine and human; that it would be impolitic to give a preference to any of the three princesses, all of them being so illustrious and deserving; but, to show how much he valued an alliance with his Imperial majesty, he would become a suppliant to that prince for his niece, daughter to Christiern king of Denmark, to become his bride. The ambassador's answer to this unexpected request was, that she was already betrothed to the count palatine, and that before that time the marriage was probably completed.

An. 1534.

475 Offers of the emperor of Germany,

476 which are rejected by James.

But whether the Imperial ambassador had any right to offer the English princess or not, it is agreed by most historians, that James was offered either Mary or Elizabeth by their father Henry himself. To Mary of Bourbon, the daughter of the duke of Vendosme, he is said to have been contracted; but for some reason all these matches were broken off; and the king at last went to France, where he married Magdalen the eldest daughter of Francis. The nuptials were celebrated at Paris in the year 1537, with great magnificence; and among other things served up by way of dessert at the marriage-feast, were a number of covered cups filled with pieces of gold and gold-dust, the native produce of Scotland, which James distributed among the guests. This gold was found in the mines of Crawford-moor, which were then worked by the Germans. In the beginning of May, the royal pair embarked for Leith, under convoy of four large ships of war, and landed on the 28th of the same month. The joy of the Scots was inexpressible, but it was of short continuance; for the young queen died of a fever on the 22d of July the same year.

477 He marri the king o France's daughter, An. 1537

478 who dies soon after

King James did not long remain a widower; for the same year he sent Beaton abbot of Arbroath, to negociate his second marriage with a French lady, Mary of Guise, dutchess-dowager of Longueville. In this he was rivalled by his uncle Henry VIII., but not before James had been contracted to her. But this was nothing to Henry; for he not only insisted on having this lady for his wife, but threw out some menaces against Francis, because he would not comply with this unjustifiable request. In January 1538, she was married to James, and escorted to Scotland by the admiral of France with a considerable squadron; as both James and Francis were suspicious that Henry would make some attempt to intercept the royal bride. But nothing of this kind happened, and she landed safely at Fifeness; whence she was conducted to the king at St Andrew's.

479 James rivalled by his uncle in a secon marriage. An. 1538

But while James appeared thus to be giving himself up to the pleasures of love, he was in other respects showing himself a bloody tyrant. Some differences subsisted between the families of Gordon and Forbes in the north. The heir of the house last mentioned had been educated in a loose dissipated manner, and associated with a worthless fellow named *Strahan*. Having refused this favourite something he had asked, the latter attached himself to Gordon earl of Huntly, who, it is said, assisted him in forming a charge of treason against Forbes. He was accused of intending to restore the Douglases to their forfeited estates and honours; which improbable story being supported by some venal evidences, the unhappy young man was condemned and executed as a traitor. The king could not but see the injustice of this execution; and, in order to make some compensation for it, banished Strahan. The following execution, which happened a few days after, was much more inhuman, insomuch that it would have stained the annals even of the most despotic tyrant. The earl of Angus, finding that he could not regain the favour of the king, had recourse to the method usual in those days, viz. the committing of depredations on the borders. This crime was sufficient with James to occasion the death of his innocent sister, the dowager-lady of Glammis. She had been addressed by one Lyon, whom she had rejected in favour of a gentleman of the name of *Campbell*. Lyon, exasperated at this repulse, found means of admittance to James, whom he filled with the greatest terrors on account of the practices of the family of Angus; and at last charged the lady, her husband, and

480 Cruel execution of the heir of the house o Forbes,

481 and of the dowager lady of Glammis.

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and an old priest, with a design of poisoning the king in order to restore Angus. The parties were all remarkable for their quiet and innocent lives; but even this circumstance was by their diabolical accuser turned to their prejudice, by representing it as the effect of cunning or caution. In this reign an accusation of treason was always followed by condemnation. The evidence against the lady, however, appeared so absurd and contradictory, that some of the judges were for dropping the prosecution, and others for recommending her case to the king: but the majority prevailed to have it determined by a jury, who brought her in guilty; and she was condemned to be burnt alive on the Castle-hill of Edinburgh. The defence made by her would have done honour to the ablest orator, and undeniably proved her innocence; but though it was reported to James, it was so far from mitigating her sentence, that it was aggravated by her husband being obliged to behold her execution. The unhappy husband himself endeavoured to make his way over the castle wall of Edinburgh; but the rope proving too short, he was dashed in pieces: and Lord Glammis her son, though but a child, was imprisoned during the remainder of this reign. The old priest, though put to the torture, confessed nothing, and was freed. Lyon, like the other accuser already mentioned, was banished.

482 Death of her husband.

483 The king seized with a kind of distraction. An. 1540.

Whether these and other cruelties had affected the king's conscience, or whether his brain had been deranged by the distractions of the different parties, is unknown; but it is certain, that, in the year 1540, he began to live retired: his palace appeared like the cloistered retreat of monks; his sleep was haunted by the most frightful dreams, which he construed into apparitions; and the body of Sir James Hamilton, whose execution has already been mentioned, seemed continually presented to his eyes. Perhaps the loss of his two sons, who died on the same day that Sir James was executed, might have contributed to bring this man more remarkably to his remembrance. No doubt, it added to the gloom of his mind; and he now saw his court abandoned by almost all his nobility.

484 Hostilities commence between Scotland and England.

At last James was in some degree roused from his inaction, by the preparations made against him by his uncle Henry VIII. of England. Some differences had already taken place; to accommodate which, Henry had desired a conference with James at York. But this the latter, by the advice of his parliament, had declined. The consequence was a rupture between the two courts, and the English had taken 20 of the Scots trading vessels. Henry threatened to revive the antiquated claim of the English superiority over Scotland, and had given orders for a formidable invasion of the Scotch borders. He complained that James had usurped his title of Defender of the Faith, to which he had added the word Christian, implying that Henry was an infidel: but the kings of Scotland had, some time before, been complimented by the papal see with that title. James, on the other hand, turned his attention towards Ireland, the north of which was peopled with inhabitants who owned no sovereign but the king of Scotland, and who offered to serve James against the English; some of their chiefs having actually repaired to Scotland, and done homage to James. Henry had, about this time, declared himself king of Ireland, of which he was before only styled the *lord*; and James strenuously asserted, that he had a preferable claim to at least one half of that island, which had been peopled by the subjects of Scotland. Though the Scottish historians of this reign take very little notice of this incident, yet James appears to have been very tenacious of his title; and that there was a great intercourse carried on between the subjects of Scotland and the northern Irish, who unanimously acknowledged James for their natural sovereign. Indeed, this was the only ground of quarrel that the king, with the least shadow of justice, could allege against Henry.

485 The sovereignty of Ireland claimed by both kings.

Scotland.

486 An act of indemnity for crimes committed during the king's minority.

His parliament being met, many public spirited acts were passed; and before the assembly was dissolved, the members renewed the acts against leasing-making; by which is meant the misrepresenting of the king to his nobles, or the nobles to their king: and James, to dismiss them in good humour, passed an act of free grace for all crimes committed in his minority; the earl of Angus, and Sir George and Sir Archibald Douglas, being excepted.

Henry, after cutting off the head of his wife Catharine Howard, married and divorced the princess Anne of Cleves, and found himself either deserted or distrusted by all the princes on the continent, Protestant as well as Catholic. James and his clergy relied greatly on this public odium incurred by Henry; but the emperor having again quarrelled with Francis, left Henry, whose dominions they had threatened jointly to invade, at liberty to continue his preparations against the Scots. Henry first ordered his fleet, then the most formidable of any in the world, to make fresh descents upon Scotland. At the same time, he appointed a very considerable army to rendezvous upon the borders, under the command of Sir Robert Bowes, one of his wardens, the earl of Angus, and his two brothers Sir George and Sir Archibald Douglas. James was every day expecting supplies of money, arms, and other necessaries from Francis; but these not arriving, he reassembled his parliament on the 14th of March, which gratified him in all his demands. Many excellent regulations were made for the internal government, peace, and security of the kingdom, and against the exportation of money instead of merchandise. Acts were passed for fortifying and embellishing the town of Edinburgh, and for better supplying the subjects with wine and all the other necessaries of life. The royal revenue was increased by many additional estates; and there was completed one of the best plans for a national militia that perhaps ever appeared. As yet, excepting in the disappointment which Henry met with from his nephew in not meeting him at York, he had no grounds for commencing hostilities. But it is here proper to observe, that the queen-mother was then dead; and consequently the connexion between James and Henry was weakened. Whatever her private character might be, she was certainly a happy instrument of preventing bloodshed between the two kingdoms. She was buried with royal honours at Perth.

487 Preparations of Henry.

488 Death of the queen-mother.

James, to all appearance, was at this time in a most desirable situation. His domain, by forfeitures and otherwise, far exceeded that of any of his predecessors. He could command the purses of his clergy; he had large sums of ready money in his exchequer; his forts were well stored and fortified; and he was now daily receiving remittances of money, arms, and ammunition from

Scotland.

489 James loses the affections of his subjects. An. 1542.

from France. All this happiness, however, was only apparent; for the affections of his nobility, and the wiser part of his subjects, were now alienated from him more than ever, by his excessive attachment to bigotry and persecution.

He had nominated the earl of Huntly to command his army on the borders, consisting of 10,000 men; and his lieutenant-general was Sir Walter Lindsay of Torphichen, who had seen a great deal of foreign service, and was esteemed an excellent officer. Huntly acquitted himself admirably in his commission; and was so well served by his spies, as to have certain intelligence that the English intended to surprise and burn Jedburgh and Kelso. The English army under Sir Robert Bowes and the Douglases, with other northern Englishmen, continued still on the borders; and one of the resolutions which the Scotch nobility and gentry had formed, was, not to attack them on their own ground, nor to act offensively, unless their enemies invaded Scotland. Huntly being informed that the English had advanced, on the 24th of August, to a place called *Haldanrig*, and that they had destroyed great part of the Scotch and debateable lands, resolved to engage them: and the English were astonished, when at daybreak they saw the Scotch army drawn up in order of battle. Neither party could now retreat without fighting; and Torphichen, who led the van, consisting of 2000 of the best troops of Scotland, charged the English so furiously, that Huntly gained a complete and an easy victory. Above 200 of the English were killed, and 600 taken prisoners; among whom were their general Sir Robert Bowes, Sir William Moubray, and about 60 of the most distinguished northern barons; the earl of Angus escaping by the swiftness of his horse. The loss of the Scots was inconsiderable.

490 The English defeated by the earl of Huntly.

In the mean time, the duke of Norfolk having raised a great army, had orders to march northwards, and to distribute a manifesto, complaining of James for having disappointed Henry in the interview at York, and reviving the ridiculous claim of his own and his ancestors superiority over the kingdom of Scotland. It was plain, from the words of this manifesto, that Henry was still placable towards James; and that he would easily have dropt that claim, if his nephew would make any personal advances towards a reconciliation.

The condition of James was now deplorable. The few faithful counsellors whom he had about him, such as Kirkaldy of Grange, who was then lord treasurer, plainly intimated, that he could have no dependence on his nobles, as he was devoted to the clergy; and James, sometimes, in a fit of distraction, would draw his dagger on the cardinal and other ecclesiastics when they came to him with fresh propositions of murder and proscriptions, and drive them out of his presence. But he had no constancy of mind; and he certainly put into his pocket a bloody scroll that had been brought him by his priests, beginning with the earl of Arran, the first subject of the kingdom. In one of his cooler moments, he appointed the lord Erskine, and some other of his nobility, to make a fresh attempt to gain time; and Henry even condescended to order the duke of Norfolk (who was then advanced as far as York), the lord privy seal, the bishop of Durham, and others, to treat with him. The conferences were short and unsuccessful. The duke bitterly complained, that the Scots sought only to amuse him till the season for action was over. In short, he considered both them and Learmouth, who were ordered to attend him, as so many spies, and treated them accordingly. It was the 21st of October before he entered the eastern borders of Scotland. According to the Scottish historians, his army consisted of 10,000 men; but the English have fixed it at 20,000.

491 Distraction of James

Scotland.

492 The duke of Norfolk enters Scotland with a formidable army.

James affected to complain of this invasion as being unprovoked; but he lost no time in preparing to repel the danger. The situation of his nobility, who were pressed by a foreign invasion on the one hand, and domestic tyrants on the other, induced them to hold frequent consultations; and in one of them, they resolved to renew the scene that had been acted at Lawderbridge under James III. by hanging all his grandson's evil counsellors. The Scots historians say, that this resolution was not executed, because the nobility could not agree about the victims that were to be sacrificed; and that the king, who was encamped with his army at Falla-moor, having intelligence of their consultation, removed hastily to Edinburgh; from which he sent orders for his army to advance, and give battle to the duke of Norfolk, who appears not as yet to have entered the Scotch borders. The answer of the nobility was, that they were determined not to attack the duke on English ground; but that if he invaded Scotland, they knew their duty. The earl of Huntly, who commanded the van of the Scottish army, consisting of 10,000 men, was of the same opinion: but no sooner did Norfolk pass the Tweed, than he harassed the English army, cut off their foraging parties, and distressed them in such a manner, that the duke agreed once more to a conference for peace; which was managed, on the part of the Scots, by the bishop of Orkney and Sir James Learmouth: but nothing was concluded. The English general, finding it now impossible on many accounts to prosecute his invasion, repassed the Tweed; and was harassed in his march by the earl of Huntly, who desisted from the pursuit the moment his enemies gained English ground.

493 Conspiracy against James's favourites.

494 The English obliged to retreat.

James, whose army at this time amounted to above 30,000 men, continued still at Edinburgh, from which he sent frequent messages to order his nobility and generals to follow the duke of Norfolk into England; but these were disregarded. James was flattered, that now he had it in his power to be revenged for all the indignities that had been offered by England to Scotland. In this he was encouraged by the French ambassador, and the high opinion he had of his own troops. About the beginning of November, he came to a resolution of reassembling his army, which was disbanded after the duke of Norfolk's retreat. This project appeared so plausible and so promising, that several of the nobility are said to have agreed to it, particularly the lord Maxwell, the earls of Arran, Cassilis, and Glencairn, with the lords Fleming, Somerville, and Erskine: others represented, but in vain, that the arms of Scotland had already gained sufficient honour, by obliging the powerful army of the English, with their most experienced general at their head, to make a shameful retreat before a handful; that the force of Scotland was inferior to that of England; and that an honourable peace was still practicable. It was said, in reply to those considerations, that the state of the quarrel

495 The Scots refuse to pursue.

Scotland.

rel was now greatly altered; that Henry had in his manifesto declared his intention of enslaving their country; that he treated the nobility as his vassals; that the duke of Norfolk had been guilty of burning the dwellings of the defenceless inhabitants, by laying about 20 villages and towns in ashes; and that no Scotchman, who was not corrupted by Henry's gold, would oppose the king's will. The last, perhaps, was the chief argument that prevailed on the lord Maxwell, a nobleman of great honour and courage, to agree to carry the war into England by Solway, provided he were at the head of 10,000 men. It was at last agreed that the earl of Arran and the cardinal should openly raise men, as if they intended to enter the eastern marches, where they were to make only a feint, while the lord Maxwell was to make the real attempt upon the west. Private letters were everywhere circulated to raise those who were to serve under the lord Maxwell; among whom were the earls of Cassilis and Glencairn, the lords Fleming, Somerville, Erskine, and many other persons of great importance. James, who never was suspected of pusillanimity, would probably have put himself at the head of this expedition, had he not been dissuaded from it by his priests and minions, who reminded him of the consultations at Falla-moor, and the other treasonable practices of the nobility. They added, that most of them being corrupted by English gold, he could not be too much on his guard. He was at last persuaded to repair to the castle of Lochmaben or Carlaverock, and there to wait the issue of the inroad.

496 But at last consent to invade England.

497 Lord Maxwell superseded in the command by Oliver Sinclair.

It was probably at this place that James was prevailed on to come to the fatal resolution of appointing one Oliver Sinclair, a son of the house of Roslin, and a favourite minion at court, to command the army in chief; and his commission was made out accordingly. On the 23d of November, the Scots began their march at midnight; and having passed the Esk, all the adjacent villages were seen in flames by the break of day. Sir Thomas Wharton, the English warden of those marches, the bastard Dacres, and Musgrave, hastily raised a few troops, the whole not exceeding 500 men, and drew them up on an advantageous ground; when Sinclair, ordering the royal banner to be displayed, and being mounted on the shoulders of two tall men, produced and read his commission. It is impossible to imagine the consternation into which the Scots were thrown on this occasion; and their leaders setting the example, the whole army declared (according to the Scotch authors), that they would rather surrender themselves prisoners to the English, than submit to be commanded by such a general. In an instant, all order in the Scotch army was overturned; horse and foot, soldiers and scullions, noblemen and peasants, were intermingled. It was easy for the English general to perceive this confusion, and perhaps to guess at its cause. A hundred of his light horse happened to advance: they met no resistance: the nobles were the first who surrendered themselves prisoners; and the rest of the English advancing, they obtained a bloodless victory; for even the women and the boys made prisoners of Scotch soldiers, and few or none were killed. The lord Herbert relates the circumstances of this shameful affair with some immaterial differences; but agrees on the whole with the Scots authorities. He mentions, however, no more than 800 common soldiers having been made prisoners. The chief of the prisoners were the earls of Cassilis and Glencairn, the lords Maxwell, Fleming, Somerville, Oliphant, and Gray, with above 200 gentlemen.

498 The Scots shamefully defeated at at Solway moss.

James was then at Carlaverock, which is about 12 miles distant from the place of action, depressed in his spirits, and anxious about the event of the expedition, which is to this day called the *Raid of Solway moss*. When the news reached him, and he learned that the earl of Arran and the cardinal were returned to Edinburgh, he was seized with an additional dejection of mind, which brought him to his grave. In such a situation, every cruel action of his former life wounded his conscience; and he at last sunk into a sullen melancholy, which admitted of no consolation. From Carlaverock he removed to Falkland; and was sometimes heard to express himself as if he thought that the whole body of the nobility were in a conspiracy against his person and dignity. The presence of the few attendants who were admitted into his chamber, and who were the wicked instruments of his misconduct, seemed to aggravate his sufferings, and he either could not or would not take any sustenance. His death being now inevitable, Beaton approached his bed-side with a paper, to which he is said to have directed the king's hand, pretending that it was his last-will. On the 10th of December, while James was in this deplorable state, a messenger came from Linlithgow, with an account that the queen was brought to bed of a daughter; and the last words he was distinctly heard to say, were, "It will end as it began; the crown came by a lass, and it will go by a lass." He then turned his face to the wall, and in broken ejaculations pronounced the words *Solway moss*, and some faint expressions alluding to the disgrace he suffered. In this state he languished for some days; for it is certain he did not survive the 14th.

James V. died 14th December 1542.

James V. was succeeded by his infant daughter Mary, whose birth we have already mentioned. James had taken no steps for the security of his kingdom, so that ambitious men had now another opportunity of throwing the public affairs into confusion. The situation of Scotland indeed at this time was very critical. Many of the nobility were prisoners in England, and those who remained at home were factious and turbulent. The nation was dispirited by an unsuccessful war. Commotions were daily excited on account of religion, and Henry VIII. had formed a design of adding Scotland to his other dominions. By a testamentary deed, which Cardinal Beaton had forged in the name of his sovereign, he was appointed tutor to the queen and governor of the realm, and three of the principal nobility were named to act as his counsellors in the administration. The nobility and the people, however, calling in question the authenticity of this deed, which he could not establish, the cardinal was degraded from the dignity he had assumed; and the estates of the kingdom advanced to the regency James Hamilton earl of Arran, whom they judged to be entitled to this distinction, as the second person of the kingdom, and the nearest heir, after Mary, to the crown.

500 Is succeeded by Mary.

501 Critical situation of affairs.

502 Earl of Arran regent.

The disgrace of Cardinal Beaton might have proved the destruction of his party, if the earl of Arran had been endowed with vigour of mind and ability. But his

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503 His character.

his views were circumscribed; and he did not compensate for this defect by any firmness of purpose. He was too indolent to gain partisans, and too irresolute to fix them. Slight difficulties filled him with embarrassment, and great ones overpowered him. His enemies, applying themselves to the timidity of his disposition, betrayed him into weaknesses; and the esteem which his gentleness had procured him in private life, was lost in the contempt attending his public conduct, which was feeble, fluctuating, and inconsistent.

504 He becomes popular on account of his attachment to the reformation.

The attachment which the regent was known to profess for the reformed religion, procured him the love of the people; his high birth, and the mildness of his virtues, conciliated their respect; and from the circumstance, that his name was at the head of the roll of heretics which the clergy had presented to the late king, a sentiment of tenderness was mingled with his popularity. His conduct at first corresponded with the impressions entertained in his favour. Thomas Guillame and John Rough, two celebrated preachers, were invited to live in his house; and he permitted them to declaim openly against the errors of the church of Rome. They attacked and exposed the supremacy of the pope, the worship of images, and the invocation of saints. Cardinal Beaton and the prelates were exceedingly provoked, and indefatigably active in defence of the established doctrines.

505 The people permitted to read the scriptures in their mother-tongue.

This public sanction afforded to the reformation was of little consequence, however, when compared with a measure which was soon after adopted by Robert Lord Maxwell. He proposed, that the liberty of reading the scriptures in the vulgar tongue should be permitted to the people; and that, for the future, no heretical guilt should be imputed to any person for having them in his possesion, or for making use of them. The regent and the three estates acknowledged the propriety of this proposal. Gavin Dunbar archbishop of Glasgow, and chancellor of Scotland, protested, indeed, for himself and for the church, that no act on this subject should pass and be effectual, till a provincial council of all the clergy of the kingdom should consider and determine whether there was a necessity that the people should consult and study the scriptures in the vulgar tongue. But his protestation being disregarded, the bill of the lord Maxwell was carried into a law, and the regent made it generally known by proclamation.

From this period copies of the Bible were imported in great numbers from England; and men, allured by an appeal so flattering to their reason, were proud to recover from the supine ignorance in which they had been kept by an artful priesthood. To read became a common accomplishment: and books were multiplied in every quarter, which disclosed the pride, the tyranny, and the absurdities of the Romish church and superstitions.

506 Hen. VIII. proposes to unite the kingdoms by the marriage of Edward VI. with Mary

The death of James V. proved very favourable to the ambitious designs of Henry. He now proposed an union of the two kingdoms by the marriage of his son Edward VI. with Mary the young queen of Scotland. To promote this, he released the noblemen who had been taken prisoners at Solway, after having engaged them, on oath, not only to concur in promoting the alliance, but to endeavour to procure him the charge and custody of the young queen, with the government of her kingdom, and the possession of her castles. The earl of Angus and his brother, who had been fifteen years in exile, accompanied them to Scotland, and brought letters from Henry recommending them to the restitution of their honours and estates. The regent was inclined to favour the demands of persons of such eminent station; but though the states were inclined to the marriage, they refused to permit the removal of the queen into England, and treated with contempt the idea of giving the government of Scotland and the care of the castles to the king of England. Sir Ralph Sadler, the English ambassador, exerted all his endeavours to induce the regent to comply with the requisitions of his master; but all his intrigues were unsuccessful; and Henry perceiving that he must depart from such extravagant conditions, at last authorized the commissioners to consent to treaties of amity and marriage, on the most favourable terms that could be procured. In consequence of these powers given to the commissioners, it was agreed that a firm peace and alliance should take place between the two nations, and that they should mutually defend and protect each other in case of an invasion. The queen was to remain within her own dominions till she was ten years of age; and Henry was not to claim any share in the government. Six nobles, or their apparent heirs, were to be surrendered to him in security for the conveyance of the young queen into England, and for her marriage with Prince Edward, as soon as she was ten years of age. It was also stipulated, that though the queen should have issue by Edward, Scotland should retain not only its name, but its laws and liberties.

507 He departs from some of his proposals.

508 The regent opposed by Cardinal Beaton,

These conditions, however advantageous to Scotland, did not give entire satisfaction. Cardinal Beaton, who had been imprisoned on pretence of treasonable schemes, and was now released from his confinement by the influence of the queen dowager, took all opportunities of exclaiming against the alliance, as tending to destroy the independence of the kingdom. He pointed out to the churchmen the dangers which arose from the prevalence of heresy, and urged them to unanimity and zeal. Awakening all their fears and selfishness, they granted him a large sum of money with which he might gain partisans; the friars were directed to preach against the treaties with England; and fanatics were instructed to display their rage in offering indignities to Sir Ralph Sadler.

509 and by several noblemen;

Cardinal Beaton was not the only antagonist with whom the regent had to deal. The earls of Argyle, Huntly, Bothwel, and Murray, concurred in the opposition; and having collected some troops, and possessed themselves of the queen's person, they assumed all the authority. They were joined by the earl of Lenox, who was led to hope that he might espouse the queen-dowager and obtain the regency. He was also inclined to oppose the earl of Arran, from an ancient quarrel which had subsisted between their two families; and from a claim which he had to supersede him, not only in the enjoyment of his personal estates, but in the succession to the crown. The regent, alarmed at such a powerful combination against him, inclined to attend to some advances which were made him by the queen-dowager and cardinal. To refuse to confirm the treaties, after he had brought them to a conclusion, was, however, a step so repugnant to probity, that he could not be prevailed on to adopt it. He therefore, in a solemn manner,

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510 but confirms the treaties of amity and marriage with England.

511 He abandons the English interest, and renounces the Protestant religion.

ner, ratified them in the abbey-church of Holyroodhouse, and commanded the great seal of Scotland to be affixed to them. The same day he went to St Andrew's, and issued a mandate to the cardinal, requiring him to return to his allegiance. To this the prelate refused to pay any attention, or to move from his castle; on which the regent denounced him as a rebel, and threatened to compel him to submission by military force. But in a few days after, the pusillanimous regent meeting with Beaton, forsook the interest of Henry VIII. and embraced that of the queen dowager and of France. Being in haste also to reconcile himself to the church of Rome, he renounced publicly, at Stirling, the opinions of the reformed, and received absolution from the hands of the cardinal.

By this mean-spirited conduct the regent exposed himself to universal contempt, while Cardinal Beaton usurped the whole authority. The Earl of Lenox, finding that he had no hopes of success in his suit to the queen-dowager, engaged in negociations with Henry, to place himself at the head of the Scottish lords who were in the English interest, and to assert the cause of the reformation. The consequence of all this was a rupture with England. Henry not only delayed to ratify the treaties on his part, but ordered all the Scottish ships in the harbours of England to be taken and confiscated. This violent proceeding inflamed the national disgusts against the English alliance; and the party of the cardinal and queen-dowager thus obtained an increase of popularity. Henry himself, however, was so much accustomed to acts of outrage and violence, that he seemed to think the step he had just now taken a matter of no moment; and therefore he demanded that the hostages, in terms of the treaty of marriage, should still be delivered up to him. But the cardinal and regent informed his ambassador, Sir Ralph Sadler, that from their own authority they could not command any of the nobles to be committed to him as hostages; and that the offensive strain of behaviour assumed by the English monarch might have altered the sentiments of the Scottish parliament with regard to a measure of such importance. After much altercation, the conferences were broken off; and as the lords who were released from captivity had promised to return prisoners to England, it now remained with them to fulfil their engagements. None of them, however, had the courage to do so, except the earl of Cassilis; and Henry, being struck with his punctilious sense of honour, dismissed him loaded with presents.

512 Henry's violent proceedings.

513 The negotiations broken off.

514 The queen crowned.

Cardinal Beaton being thus in possession of power, took measures to secure it. The solemnity of the coronation of the young queen was celebrated at Stirling. A council was chosen to direct and assist the regent in the greater affairs of state, and at the head of this was the queen-dowager. John Hamilton, the abbot of Paisley, who had acquired an ascendency over the regent, was also promoted to the privy seal, and made treasurer of the kingdom; and Cardinal Beaton, upon the request of the regent and the three estates, accepted the office of lord high chancellor.

515 Enmity between Cardinal Beaton and the earl of Lenox.

After the flatteries and the hopes with which the earl of Lenox had been amused, the cardinal had reason to dread the utmost warmth of his resentment. He had, therefore, written to Francis I. giving a detail of the critical situation of affairs in Scotland, and intreating him to recal to France the earl of Lenox, who was now interested to oppose the influence and operations of the queen-dowager. But the indignation with which the treachery of the cardinal had inflamed the earl of Lenox, precipitated him into immediate action, and defeated the intention of this artifice. In the hostile situation of his mind towards Scotland, an opportunity of commencing hostilities had presented itself. Five ships had arrived in the Clyde from France, loaded with warlike stores, and having on board the patriarch of Venice, Peter Contareni legate from Paul III, with La Brosse, and James Mesnaige, ambassadors from France; and 30,000 crowns, which were to be employed in strengthening the French faction, and to be distributed by the queen-dowager and the cardinal. Prevailing with the commanders of these vessels, who conceived him to be the firm friend of their monarch, he secured this money for his own use, and deposited the military stores in his castle of Dumbarton, under the care of George Stirling the deputy-governor, who at that time was entirely in his interests.

516 Hostilities committed by the latter.

By the successful application of this wealth, the earl of Lenox called forth the full exertion of his party in levying a formidable army, with which he threatened the destruction of the regent and the cardinal, offering them battle in the fields between Leith and Edinburgh. The regent, not being in a condition to accept the challenge of his rival, had recourse to negociation. Cardinal Beaton and the earl of Huntly proposed terms of amity, and exerted themselves with so much address, that the earl of Lenox, losing the opportunity of chastising his enemies, consented to an accommodation, and again indulged the hope of obtaining the queen-dowager in marriage. His army was dismissed, and he threw himself at the feet of his mistress, by whom he was, in appearance, favourably received: but many of his friends were seduced from him under different pretences; and at last, apprehending his total ruin from some secret enterprise, he fled to Glasgow, and fortified himself in that city. The regent, collecting an army, marched against him; and having defeated his friend the earl of Glencairn in a bloody encounter, was able to reduce the place of strength in which he confided. In this ebb of his fortune, the earl of Lenox had no hope but from England.

517 Lennox suffers himself to be amused by his enemies,

518 and is obliged to fly.

The revolution produced in the political state of Scotland by the arts of Cardinal Beaton, while it defeated the intrigues of Henry VIII, pointed all its strength against the progress of the reformation. After abandoning his old friends, the regent, in connexion with the cardinal, was ambitious to undo all the services he had rendered to them. The three estates annulled the treaties of amity and marriage, and empowered commissioners to conclude an alliance with France. The regent discharged the two preachers Guillame and Rough, whom he had invited to impugn the doctrines of the church. He drove back into England many pious persons, whose zeal had brought them to Scotland, to explain and advance the new opinions. He caressed with particular respect the legate whom the pope had sent to discourage the marriage of the young queen with the prince of Wales, and to promise his assistance against the enterprises of Henry VIII. He procured an act of parliament to be passed for the persecution of heretics; and, on the foundation of this authority, the most rigorous proceedings

519 Alliance with France concluded, and the Protestants persecuted.

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proceedings were concerted against the reformed; when the arms of England, rousing the apprehensions of the nation, gave the fullest employment to the regent and his counsellors.

520 Lenox engages in the English interest.

In the rage and anguish of disappointed ambition, the earl of Lenox made an offer to assist the views of the king of England; who, treating him as an ally, engaged, in the event of success, to give him in marriage his niece the lady Margaret Douglas, and to invest him with the regency of Scotland. To establish the reformation in Scotland, to acquire the superiority over it to Henry VIII, and to effectuate the marriage of the prince of Wales with the queen of Scots, were the great objects of their confederacy.

521 An English army enters Scotland. An. 1544.

Henry, though engaged in a war with France, which required all his military force, could not resist the earliest opportunity in his power to execute his vengeance against Scotland. Edward Seymour, earl of Hartford, was appointed to command 10,000 men; who were embarked at Tinmouth, on board a fleet of 200 ships, under the command of Sir John Dudley lord Lisle. This army was landed without opposition near Leith; and the earl of Hartford made it known to Sir Adam Otterburn, the provost of Edinburgh, that his commission empowered him to lay the country waste and desolate, unless the regent should deliver up the young queen to the king of England. It was answered, that every extremity of distress would be endured, before the Scottish nation would submit to so ignominious a demand.

522 Who commit cruel devastations, and then suddenly retire.

Six thousand horse from Berwick, under the lord Evers, now joined the earl of Hartford. Leith and Edinburgh, after a feeble resistance, yielded to the English commander; who abandoned them to pillage, and then set them on fire. A cruel devastation ensued in the surrounding villages and country, and an immense booty was conveyed on board the English fleet. But, while an extreme terror was everywhere excited, the earl of Hartford reimbarked a part of his troops, and ordered the remainder to march with expedition to the frontiers of England.

The regent, assisted by Cardinal Beaton and the earls of Huntly, Argyle, Bothwell, and Murray, was active, in the mean time, to collect an army, and to provide for the security of the kingdom. He felt, therefore, the greatest surprise on being relieved so unexpectedly from the most imminent danger; and an expedition, conducted with so little discernment, did not advance the measures of Henry VIII. To accomplish the marriage of the young queen with the prince of Wales, to possess himself of her person, or to achieve a conquest over Scotland, were all circumstances apparently within the reach of the English commander: and yet, in the moment of victory, he neglected to prosecute his advantages; and having inflamed the animosities of the Scottish nation, by a display of the passions and cruelty of his master, left them to recover from their disaster, and to improve in their resources.

523 Ill success of the earl of Lenox.

The earl of Lenox, taking the opportunity of the English fleet, went to consult with Henry VIII. on the desperate state of his affairs. He renewed his engagements with this monarch; and received in marriage the lady Margaret Douglas, with possessions in England. Soon after, he arrived in the frith of Clyde, with 18 ships and 600 soldiers, that he might secure the castle of Dumbarton, and employ himself in plundering and devastation. But George Stirling, to whom the castle was intrusted, refused to surrender it; and even obliged him to reimbark his troops. After engaging in a few petty incursions and skirmishes, he returned to England.

524 A truce concluded with England.

In this year Henry consented to a truce; and Scotland, after having suffered the miseries of war, was subjected to the horrors of persecution. The regent had procured an act of parliament for the persecution of the reformed; and the cardinal, to draw to himself an additional splendour and power, had obtained from the pope the dignity of legate *à latere*. A visitation of his own diocese appeared to him the most proper method of commencing the proposed extirpation of heresy; and he carried with him in his train the regent, and many persons of distinction, to assist in his judicatories, and to share in his disgrace.

525 Many cruel executions on account of religion.

In the town of Perth many persons were accused and condemned. The most trifling offences were regarded as atrocious crimes, and made the subjects of prosecution and punishment. Robert Lamb was hanged for affirming that the invocation of saints had no merit to save. William Anderson, James Reynolds, and James Finlayson, suffered the same death, for having abused an image of St Francis, by putting horns upon his head. James Hunter, having associated with them, was found equally guilty, and punished in the same manner. Helen Stirke, having refused, when in labour, to invoke the asssistance of the Virgin, was drowned in a pool of water. Many of the burgesses of Perth being suspected of heresy, were sent into banishment; and the lord Ruthven, the provost, was upon the same account dismissed from office.

526 Account of Mr George Wishart.

The cardinal was strenuous in persecuting heresy in other parts of his diocese. But the discontents and clamour attending the executions of men of inferior station were now lost in the fame of the martyrdom of George Wishart; a person who, while he was respectable by his birth, was highly eminent from the opinion entertained of his capacity and endowments. The historians of the Protestant persuasion have spoken of this reformer in terms of the highest admiration. They extol his learning as extensive, insist on the extreme candour of his disposition, and ascribe to him the utmost purity of morals. But while the strain of their panegyric is exposed to suspicion from its excess, they have ventured to impute to him the spirit of prophecy; so that we must necessarily receive their eulogiums with some abatement. It may be sufficient to affirm, that Mr Wishart was the most eminent preacher who had hitherto appeared in Scotland. His mind was certainly cultivated by reflection and study, and he was amply possessed of those abilities and qualifications which awaken and agitate the passions of the people. His ministry had been attended with the most flattering success; and his courage in encountering danger grew with his reputation. The day before he was apprehended, he said to John Knox, who attended him, "I am weary of the world, since I perceive that men are weary of God." He had already reconciled himself to that terrible death which awaited him. He was found in the house of Cockburn of Ormiston, in East Lothian; who refusing to deliver him to the servants of the regent, the earl of Bothwell, the sheriff of the county, required that he should be intrusted to his care, and promised

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promised that no injury should be done to him. But the authority of the regent and his counsellors obliged the earl to surrender his charge. He was conveyed to the cardinal's castle at St Andrew's, and his trial was conducted with precipitation. The cardinal and the clergy proceeding in it without the concurrence of the secular power, adjudged him to be burnt alive. In the circumstances of his execution there appears a deliberate and most barbarous cruelty. When led out to the stake, he was met by priests, who, mocking his condition, called upon him to pray to the Virgin, that she might intercede with her Son for mercy to him. "Forbear to tempt me, my brethren," was his mild reply. A black coat of linen was put upon him by one executioner, and bags of gun-powder were fastened to his body by another. Some pieces of ordnance were pointed to the place of execution. He spoke to the spectators, intreating them to remember that he was to die for the true gospel of Christ. Fire was communicated to the faggots. From a balcony in a tower of his castle, which was hung with tapestry, the cardinal and the prelates, reclining upon rich cushions, beheld the inhuman scene. This insolent triumph, more than all his afflictions, affected the magnanimity of the sufferer. He exclaimed, that the enemy, who so proudly solaced himself, would perish in a few days, and be exposed ignominiously in the place which he now occupied.

Cardinal Beaton took a pleasure in receiving the congratulations of the clergy upon a deed, which, it was thought, would fill the enemies of the church with terror. But the indignation of the people was more excited than their fears. All ranks of men were disgusted at an exercise of power which despised every boundary of moderation and justice. The prediction of Mr Wishart, suggested by the general odium which attended the cardinal, was considered by the disciples of this martyr as the effusion of a prophet; and perhaps gave occasion to the assassination that followed. Their complaints were attended to by Norman Lesly, the eldest son of the earl of Rothes, whom the cardinal had treated with indignity, though he had profited by his services. He consented to be their leader. The cardinal was in the castle of St Andrew's, which he was fortifying after the strongest fashion of that age. The conspirators, at different times, early in the morning, entered it. The gates were secured; and appointing a guard, that no intimation of their proceedings might be carried to the cardinal, they dismissed from the castle all his workmen separately, to the number of 100, and all his domestics, who amounted to not fewer than 50 persons. The eldest son of the earl of Arran, whom he kept as an hostage for his father's behaviour, was alone detained by them. The prelate, alarmed with their noise, looked from his window, and was informed that his castle was taken by Norman Lesly. It was in vain that he endeavoured to secure the door of his chamber by bolts and chests. The conspirators brought fire, and were ready to apply it, when, admitting them into his presence, he implored their mercy. Two of them struck him hastily with their swords. But James Melvil, rebuking their passion, told them, that this work and judgment of God, though secret, ought to be done with gravity. He reminded the cardinal, in general terms, of the enormity of his sins, and reproached him in a more particular manner with the death of Mr Wishart. He swore, that he was actuated by no hopes of his riches, no dread of his power, and no hatred to his person, but that he was moved to accomplish his destruction, by the obstinacy and zeal manifested by him against Christ Jesus and his holy gospel. Waiting for no answer to his harangue, he thrust the cardinal three times through the body with his dagger, on the 29th of May 1546.

527 Cardinal Beaton assassinated. An. 1546.

The rumour that the castle was taken giving an alarm to the inhabitants of St Andrew's, they came in crowds to gratify their curiosity, and to offer their assistance, according to the sentiments they entertained. The adherents and dependants of the cardinal were clamorous to see him; and the conspirators, carrying his dead body to the very place from which he had beheld the sufferings of Mr Wishart, exposed it to their view.

528 Treaty of peace between England, France, and Scotland.

The truce, in the mean time, which had been concluded with England was frequently interrupted; but no memorable battles were fought. Mutual depredations kept alive the hostile spirit of the two kingdoms; and while the regent was making military preparations, which gave the promise of important events, a treaty of peace was concluded between England and France, in which Francis I. took care to comprehend the Scottish nation. In this treaty it was stipulated by Henry, that he was not to wage war against Scotland, unless he should be provoked by new and just causes of hostility.

But the murderers of Cardinal Beaton, apprehensive of their safety, had despatched messengers into England, with applications to Henry for assistance; and being joined by more than 120 of their friends, they took the resolution of keeping the castle, and of defending themselves. Henry, notwithstanding his treaty with France, resolved to embrace this opportunity of augmenting the disturbances of Scotland. He hastened to collect troops; and the regent and his counsellors pressed France for supplies in men, money, military stores, and artillery.

529 Proceedings against the murderers of the cardinal.

The high places which the cardinal occupied were filled up immediately upon his death. John Hamilton abbot of Paisley, was elected archbishop of St Andrew's, and George earl of Huntly was promoted to be chancellor. By these officers the regent was urged to proceed with vigour against the conspirators; and it was a matter of the greatest anxiety to him to recover his eldest son, whom they detained in custody. The clergy had, in the most solemn manner, pronounced them to be accursed; and agreed to furnish, for four months, a monthly subsidy of 3000*l.* to defray the expense of reducing them to obedience. The queen-dowager and the French faction were, at the same time, eager to concur in avenging the assassination of a man to whose counsels and services they were so greatly indebted.—And that no dangerous use might be made of the eldest son of the earl of Arran, who, after his father, was the heir of the monarchy, an act of parliament was passed, excluding him from his birthright while he remained in the possession of the enemies of his country, and substituting his brothers in his place, according to their seniority. The dark politics of Henry suggested the necessity of this expedient; and in its meaning and tendency may be remarked the spirit and greatness of a free people.

530 Castle of St Andrew's besieged.

A powerful army laid siege to the castle of St Andrew's, and continued their operations during four

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months; but no success attended the assailants. The fortifications were strong; and a communication with the besieged was open by sea to the king of England, who supplied them with arms and provisions. The garrison received his pay, and the principal conspirators had pensions from him. In return for his generosity, they engaged to promote the marriage of his son with the young queen; to advance the reformation; and to keep in custody the eldest son of the regent. Negociation succeeded to hostility; and as the regent expected assistance from France, and the conspirators had the prospect of support from an English army, both parties were disposed to gain time. A treaty was entered into, in which the regent engaged to procure from Rome an absolution to the conspirators, and to obtain to them from the three estates an exemption from prosecutions of every kind. On the part of the besieged, it was stipulated, that when these conditions should be fulfilled, the castle should be surrendered, and the regent's son delivered up to him. In the mean time Henry VIII. died; and, a few weeks after, Francis I. also paid the debt of nature. But the former, before his death, had recommended the prosecution of the Scottish war; and Henry II. the successor of Francis, was eager to show his attention to the ancient ally of his nation. When the absolution arrived from Rome, the conspirators refused to consider it as valid; and an expression used by the pope, implying an absurdity, furnished an apology for their conduct. They knew that the counsellors of Edward VI. were making vigorous preparations to invade Scotland; they were confident of their present ability to defend themselves; and the advocates for the reformation encouraged them with hopes and with flattery.

531 Death of Hen. VIII. and Francis I.

An. 1547.

The favourers of the reformation, in the mean time, adopting the intolerant maxims of the Roman Catholics, were highly pleased with the assassination of Beaton; and many of them congratulated the conspirators on what they called the godly deed and enterprise. John Rough, who had formerly been chaplain to the regent, entered the castle and joined them. At this time also John Knox began to distinguish himself, both by his success in argument and the unbounded freedom of his discourse; while the Roman clergy, everywhere defeated and ashamed, implored the assistance of the regent and his council, who assured them that the laws against heretics should be rigidly put in execution.

532 John Knox begins to distinguish himself.

533 Castle of St Andrew's taken.

In the mean time the castle of St Andrew's being invested by a fleet of 16 sail under Admiral Strozzi from France, was obliged to capitulate. Honourable conditions were granted to the conspirators; but after being conveyed to France, they were cruelly used, from the hatred entertained by the Catholics against the Protestants. Many were confined in prisons; and others, among whom, says Dr Stuart, was John Knox, were sent to the galleys. The castle itself was nearly rased to the ground.

534 Scotland invaded by the English.

The same year (1547), Scotland was invaded by an English army under the duke of Somerset, who had been chosen protector of England during the minority of Edward VI. The design of this invasion was to oblige the Scots to comply with the scheme of Henry VIII. and conclude a marriage between Edward and the young queen of Scotland. The English army consisted of 18,000 men; besides which the protector had a fleet of 60 sail, one half of which were ships of war, and the others consisted of vessels laden with provisions and military stores. On the other hand, the regent opposed him with an army of 40,000 men. Before the commencement of hostilities, however, the duke of Somerset addressed a letter or manifesto to the government, in which he pressed the marriage with such powerful arguments, and so clearly showed the benefits which would result from it to both nations, that the regent and his party, who were averse to peace, thought proper to suppress it, and to circulate a report that the English had come to force away the queen, and to reduce the kingdom to a state of dependence on him. All hopes of an accommodation being thus removed, the English army advanced to give battle to the Scots. They found the latter posted in the most advantageous situation, around the villages of Musselburgh, Inveresk, and Monckton; so that he could not force them to an action, at the same time that he found himself in danger of having his communication with his ships cut off, which would have totally deprived his army of the means of subsistence. In this dangerous situation he had again recourse to negociation, and offered terms still more favourable than before. He now declared himself ready to retire into England, and to make ample compensation for the injuries committed by his army, if the Scottish government would promise that the queen should not be contracted to a foreign prince, but should be kept at home till she was of age to choose a husband for herself, with the consent of the nobility. These concessions increased the confidence of the regent so much, that, without taking advantage of the strength of his situation, he resolved to come to a general engagement.—The protector moved towards Pinkey, a gentleman's house to the eastward of Musselburgh; and the regent conceiving that he meant to take refuge in his fleet, left the strong position in which he was encamped. He commanded his army to pass the river Esk, and to approach the English forces, which were posted on the middle of Faside-hill. The earl of Angus led the van; the main body marched under the regent; and the earl of Huntly commanded in the rear. It was the regent's intention to seize the top of the hill. The Lord Gray, to defeat this purpose, charged the earl of Angus, at the head of the English cavalry. They were received on the points of the Scottish spears, which were longer than the lances of the English horsemen, and put to flight. The earl of Warwick, more successful with his body of infantry, advanced to the attack. The ordnance from the fleet assisted his operations; and a brisk fire from the English artillery, which was planted on a rising ground, contributed still more to intimidate the Scottish soldiery.—The remaining troops under the protector were moving slowly, and in the best order, to share in the engagement. The earl of Angus was not well supported by the regent and the earl of Huntly. A panic spread through the Scottish army. It fled in different directions, presenting a scene of the greatest havock and confusion. Few perished in the fight; but the pursuit continuing in one direction to Edinburgh, and in another to Dalkeith, with the utmost fury, a prodigious slaughter ensued. The loss of the conquerors did not amount to 500 men; but 10,000 soldiers perished on the side of the vanquished. A multitude of prisoners were taken; and among these the earl of Huntly, the lord high chancellor.

535 Battle of Pinkey, September 10th 1547.

536 The Scots defeated with great slaughter.

Amidst

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Amidst the consternation of this decisive victory, the duke of Somerset had a full opportunity of effecting the marriage and union projected by Henry VIII. and on the subject of which such anxiety was entertained by the English nation. But the cabals of his enemies threatening his destruction at home, he yielded to the necessities of his private ambition, and marched back into England. He took precautions, however, to secure an entry into Scotland, both by sea and land. A garrison of 200 men was placed in the isle of St Columba in the Forth, and two ships of war were left as a further guard. A garrison was also stationed in the castle of Broughty, situated in the mouth of the Tay. When he passed through the Merse and Teviotdale, the leading men of these counties repaired to him; and taking an oath of allegiance to King Edward, surrendered their places of strength. Some of these he demolished, and to others he added new fortifications. Hume castle was garrisoned with 200 men, and intrusted to Sir Edward Dudley; and 300 soldiers were posted with 200 pioneers, in the castle of Roxburgh, under the command of Sir Ralph Bulmer.

537 Duke of Somerset returns to England.

The only resource of the regent now was the hope of assistance from France. The young queen was lodged in the castle of Dumbarton, under the care of the lords Erskine and Livingstone; and ambassadors were sent to Henry II. of France, acquainting him with the disaster at Pinkey, and imploring his assistance. The regent had sought permission from the protector to treat of peace, and the earl of Warwick was appointed to wait for them at Berwick; but none were ever sent on the part of Scotland. It was not long, therefore, before hostilities recommenced by the English. Lord Gray led an army into Scotland, fortified the town of Haddington, took the castles of Yester and Dalkeith, and laid waste the Merse, and the counties of East and Mid Lothian. On the other hand, in June 1548, Monsieur de Desse, a French officer of great reputation, landed at Leith with 6000 soldiers, and a formidable train of artillery.

538 Farther successes of the English. An. 1548.

In the mean time, the regent was in disgrace on account of the disaster at Pinkey; and the queen-dowager being disposed to supersede his authority, attempted to improve this circumstance to her own advantage. As she perceived that her power and interest could be best supported by France, she resolved to enter into the strictest alliance with that kingdom. It had been proposed that the dauphin of France should marry the queen of Scotland; and this proposal now met with many partisans, the hostilities of the English having lost a great number of friends to the cause of that country. It was resolved to send the queen immediately to France, which would remove the cause of the present contentions, and her subsequent marriage with the dauphin would in the fullest manner cement the friendship betwixt the two nations. The French government also entered deeply into the scheme: and, in order to promote it, made presents of great value to many of the Scottish nobility. The regent himself was gained over by a pension of 12,000 livres, and the title of duke of Chatelherault. Monsieur de Villegagnon, who commanded four galleys in the harbour of Leith, making a feint as if he intended to proceed instantly to France, tacked about to the north, and, sailing round the isles, received the queen at Dumbarton; whence he conveyed her to France, and delivered her to her uncles the princes of Lorraine, in the month of July 1548.

539 The queen sent to France.

These transactions did not put an end to the military operations. The siege of Haddington had been undertaken as soon as the French auxiliaries arrived, and was now conducted with vigour. To reinforce the garrison, 1500 horse advanced from Berwick; but an ambuscade being laid for them, they were intercepted and almost totally destroyed. Another body of English troops, however, which amounted only to 300 persons, was more successful. Eluding the vigilance of the Scots and the French, they were able to enter Haddington, and to supply the besieged with ammunition and provisions. The lord Seymour, high-admiral of England, made a descent upon Fife with 1200 men, and some pieces of artillery; but was driven back to his ships with great slaughter by James Stuart, natural brother to the young queen, who opposed him at the head of the militia of the county. A second descent was made by him at Montrose; but being equally unsuccessful there, he was obliged to leave Scotland without performing any important or memorable achievement.

540 The English meet with several checks.

Having collected an army of 17,000 men, and adding to it 3000 German Protestants, the protector put it under the direction of the earl of Shrewsbury. On the approach of the English, Desse, though he had been reinforced with 15,000 Scots, thought it more prudent to retreat than to hazard a battle. He raised the siege of Haddington, and marched to Edinburgh. The earl of Shrewsbury did not follow him to force an engagement: jealousies had arisen between the Scots and the French. The insolence and vanity of the latter, encouraged by their superior skill in military affairs, had offended the quick and impatient spirit of the former. The fretfulness of the Scots was augmented by the calamities inseparable from war; and after the conveyance of the young queen to France, the efficacious and peculiar advantage conferred on that kingdom by this transaction was fully understood, and appeared to them to be highly disgraceful and impolitic. In this state of their minds, Desse did not find at Edinburgh the reception which he expected. The quartering of his soldiers produced disputes, which ended in an insurrection of the inhabitants. The French fired upon the citizens. Several persons of distinction fell, and among these were the provost of Edinburgh and his son. The national discontents and inquietudes were driven, by this event, to the most dangerous extremity; and Desse, who was a man of ability, thought of giving employment to his troops, and of flattering the people by the splendour of some martial exploit.

541 Quarrels between the Scots and French.

The earl of Shrewsbury, after supplying Haddington with troops, provisions, and military stores, retired with his army into England. Its garrison, in the enjoyment of security, and unsuspicious of danger, might be surprised and overpowered. Marching in the night, Desse reached this important post; and destroying a fort of observation, prepared to storm the main gates of the city, when the garrison took the alarm. A French deserter pointing a double cannon against the thickest ranks of the assailants, the shot was incredibly destructive, and threw them into confusion. In the height of their consternation, a vigorous sally was made by the besieged. Desse renewed the assault in the morning, and was again discomfited. He now turned his arms against

542 Unsuccessful attempts on Haddington.

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543 Desse the French general gains some advantages.

against Broughty castle; and, though unable to reduce it, he recovered the neighbouring town of Dundee, which had fallen into the possession of the enemy. Hume castle was retaken by stratagem. Desse entered Jedburgh, and put its garrison to the sword. Encouraged by this success, he ravaged the English borders in different incursions, and obtained several petty victories. Leith, which from a small village had now grown into a town, was fortified by him; and the island of Inchkeith nearly opposite to that harbour, being occupied by English troops, he undertook to expel them, and made them prisoners after a brisk encounter.

His activity and valour could not, however, compose the discontents of the Scottish nation; and the queen-dowager having written to Henry II. to recal him, he was succeeded in his command by Monsieur de Thermes, who was accompanied into Scotland by Monluc bishop of Valence, a person highly esteemed for his address and ability. This ecclesiastic was intended to supply the loss of Cardinal Beaton, and to discharge the office of lord high chancellor of Scotland. But the jealousies of the nation increasing, and the queen-dowager herself suspecting his ambition and turbulence, he did not attain to this dignity, and soon returned to his own country.

544 Further successes of the French.

De Thermes brought with him from France a reinforcement of 1000 foot, 2000 horse, and 100 men-at-arms. He erected a fort at Aberlady, to distress the garrison of Haddington, and to intercept its supplies of provisions. At Coldingham he cut in pieces a troop of Spaniards in the English pay. Fast-castle was regained by surprise. Distractions in the English court did not permit the protector to act vigorously in the war. The earl of Warwick was diverted from marching an army into Scotland. An infectious distemper had broken out in the garrison at Haddington; and an apprehension prevailed, that it could not hold out for a considerable time against the Scots. The earl of Rutland, therefore, with a body of troops, entered the town; and after setting it on fire, conducted the garrison and artillery to Berwick. The regent now in possession of Haddington, was solicitous to recover the other places which were yet in the power of the English. De Thermes laid siege to Broughty castle, and took it. He then besieged Lawder; and the garrison was about to surrender at discretion, when the news arrived that a peace was concluded between France, England, and Scotland.

545 Peace concluded. An. 1550.

By this treaty the king of France obtained the restitution of Boulogne and its dependencies, which had been taken from him by the king of England, and for which he paid 400,000 crowns. No opposition was to be given to the marriage of the queen of Scotland with the dauphin: the fortresses of Lawder and Douglas were to be restored to the Scots, and the English were to destroy the castles of Roxburgh and Eyemouth. After the ratification of these articles, the queen-dowager embarked with Leon Strozzi for France, attended by many of the nobility. Having arrived there, she communicated to the king her design of assuming the goverment of Scotland, and he promised to assist her to the utmost of his power. But the jealousy which prevailed between the Scots and French rendered the accomplishment of this design very difficult. To remove the regent by an act of power might altogether endanger the scheme; but it might be possible to persuade him voluntarily to resign his office. For this purpose intrigues were immediately commenced; and indeed the regent himself contributed to promote their schemes by his violent persecution of the reformed. The peace was scarcely proclaimed, when he provoked the public resentment by an act of sanguinary insolence. Adam Wallace, a man of simple manners, but of great zeal for the reformation, was accused of heresy, and brought to trial in the church of the Black Friars at Edinburgh. In the presence of the regent, the earls of Angus, Huntly, Glencairn, and other persons of rank, he was charged with preaching without any authority of law, with baptizing one of his own children, and with denying the doctrine of purgatory; and it was strenuously objected to him, that he accounted prayers to the saints and the dead an useless superstition, that he had pronounced the mass an idolatrous service, and that he had affirmed that the bread and wine in the sacrament of the altar, after the words of the consecration, do not change their nature, but continue to be bread and wine. These offences were esteemed too terrible to admit of any pardon.—The earl of Glencairn alone protested against his punishment. The pious sufferer bore with resignation the contumelious insults of the clergy; and by his courage and patience at the stake gave a sanction to the opinions which he had embraced.

546 The queen-dowager goes to France, and schemes against the regent.

547 Adam Wallace suffers on account of religion.

548 Other instances of the regent's inhumanity and injustice.

Other acts of atrocity and violence stained the administration of the regent. In his own palace, William Crichton, a man of family and reputation, was assassinated by the lord Semple. No attempt was made to punish the murderer. His daughter was the concubine of the archbishop of St Andrew's, and her tears and intreaties were more powerful than justice. John Melvil, a person respectable by his birth and fortune, had written to an English gentleman, recommending to his care a friend who at that time was a captive in England. This letter contained no improper information in matters of state, and no suspicion of any crime agaisst Melvil could be inferred from it. Yet the regent brought him to trial on a charge of high treason; and, for an act of humanity and friendship, he was condemned to lose his head. The forfeited estate of Melvil, was given to David the youngest son of the regent.

549 Schemes of the queen-dowager to obtain the regency.

Amidst the pleasures and amusements of the French court, the queen-dowager was not inattentive to the scheme of ambition which she had projected. The earls of Huntly and Sutherland, Marischal and Cassilis, with the lord Maxwell, and other persons of eminence who had accompanied her to France, were gained over to her interests. Robert Carnegie of Kinnaird, David Panter bishop of Ross, and Gavin Hamilton commendator of Kilwinning, being also at this time in that kingdom, and having most weight with the regent, were treated with a most punctilious respect. Henry declared to them his earnest wish that the queen-dowager might acquire the government of Scotland. In case the regent should consent to this measure, he expressed a firm intention that no detriment should happen to his consequence and affairs; and he desired them to inform him, that he had already confirmed his title of *duke of Chatelherault*, had advanced his son to be captain of the Scots gendarmes in France, and was ready to bestow other marks of favour on his family and relations. On this business, and with this message, Mr Carnegie was despatched

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despatched to Scotland; and a few days after, he was followed by the bishop of Ross. The bishop, who was a man of eloquence and authority, obtained, though with great difficulty, a promise from the regent to resign his high office; and for this service he received, as a recompense, an abbey in Poitou.

550 She returns to Scotland. An. 1551.

The queen-dowager, full of hope, now prepared to return to Scotland, and in her way thither made use of a safe-conduct obtained from Edward VI. by the king of France. The English monarch, however, had not yet forgotten the beautiful queen of Scotland; and did not fail to urge his superiority of claim to her over the dauphin. The queen-dowager did not seriously enter upon the business; but only in general terms complained of the hostilities committed by the English; and two days after this conversation, she proceeded towards Scotland, and was conducted by the earl of Bothwell, Lord Hume, and some other noblemen, to Edinburgh, amidst the acclamations of the people. She had not long returned to the capital, when the bad conduct of the regent afforded her an opportunity of exerting her influence and address to the advantage of her project. The regent having proposed a judicial circuit through the kingdom, under pretence of repressing crimes and disorders, molested the people by plunder and rapine. Great fines were levied for offences pretended as well as real; and the Protestants in particular seemed to be the objects of his displeasure and severity. In his progress he was accompanied by the queen-dowager; and as she affected to behave in a manner directly opposite, the most disagreeable comparisons were made between her and the regent. The bishop of Ross, to whom he had promised to resign his office, did not fail to put him in mind of his engagements; but he had now altered his mind, and wished still to continue in power. His resolution, however, failed him on the first intimation of a parliamentary inquiry into the errors of his administration. An agreement with the queen-dowager then took place; and it was stipulated, that he should succeed to the throne upon the death of the queen without issue; that his son should enjoy the command of the gendarmes; that no inquiry should be made into his expenditure of the royal treasures; that no scrutiny into his government should take place; and that he should enjoy in the most ample manner his dutchy and his pension. These articles were ratified at an assembly of parliament, and the queen-dowager was formally invested with the regency.

551 Rapacity and injustice of the regent.

552 He resigns his office, which is given to the queen-dowager. An. 1554.

Mary of Lorraine, the new regent, though she had with great difficulty attained the summit of her wishes, seemed to be much less conversant with the arts of government than those of intrigue. She was scarcely settled in her new office when she rendered herself unpopular in two respects; one by her too great attachment to France, and the other by her persecution of the reformed religion. She was entirely guided by the councils of her brothers the Duke of Guise and the cardinal of Lorraine; and paid by far too much attention to M. d'Oysel the French ambassador, whom they recommended to her as an able and faithful minister. Several high offices were filled with Frenchmen, which excited in the highest degree the resentment of the Scottish nobility; and the commonalty were instantly prejudiced against her by the partiality which she showed to the Papists. At first, however, she enacted many salutary laws; and while she made a progress through the southern provinces of the kingdom to hold justiciary courts, she endeavoured to introduce order and law into the western counties and isles; first by means of the earl of Huntly, and afterwards of the earls of Argyle and Athole, to whom she granted commissions for this purpose with effectual powers. In another improvement, which the queen-regent attempted by the advice of her French council, she found herself opposed by her own people. It was proposed that the possessions of every proprietor of land in the kingdom should be valued and entered in registers; and that a proportional payment should be made by each. The application of this fund was to maintain a regular and standing body of troops. This guard or army, it was urged, being at all times in readiness to march against an enemy, would protect effectually the frontiers; and there would no longer be any necessity for the nobles to be continually in motion on every rumour of hostility or incursion from English invaders. No art, however, or argument, could recommend these measures. A perpetual tax and a standing army were conceived to be the genuine characteristics of despotism. All ranks of men considered themselves insulted and abused; and 300 tenants of the crown assembling at Edinburgh, and giving way to their indignation, sent their remonstrances to the queen-regent in such strong and expressive language, as induced her to abandon the scheme. Yet still the attempt which she had made left an impression in the minds of the people. They suspected her to be a secret enemy to their government and liberties; and they were convinced that the king of France was engaging her in refinements and artifices, that he might reduce Scotland to a province of France.

553 She renders herself unpopular.

554 Attempts in vain to establish a standing army.

555 John Knox encourages the reformers.

While an alarm about their civil rights was spreading itself among the people, the Protestants were rising daily in their spirit and in their hopes. John Knox, (P) whose courage had been confirmed by misfortunes, and whose talents had improved by exercise, was at this time making a progress through Scotland. The characteristic peculiarities of Popery were the favourite topics of his declamation and censure. He treated the mass, in particular, with the most sovereign contempt, representing it as a remnant of idolatry. Many of the nobility and gentry afforded him countenance and protection. They invited him to preach at their houses, and they partook with him in the ordinances of religion after the reformed method. Religious societies and assemblies were publicly held, in defiance of the Papists; and celebrated preachers were courted with assiduity and bribes to reside and officiate in particular districts and towns. The clergy cited Knox to appear before them at Edinburgh, in the church of the Black-friars. On the appointed day he presented himself, with a numerous attendance of gentlemen, who were determined to exert themselves

(P) When he was sent to France (says Dr Stuart) with the conspirators against Cardinal Beaton, he was confined to the galleys; but had obtained his liberty in the latter end of the year 1549.

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themselves in his behalf. The priesthood did not choose to proceed in his prosecution; and Knox, encouraged by this symptom of their fear, took the resolution to explain and inculcate his doctrines repeatedly and openly in the capital of Scotland. In 1556, the earl of Glencairn allured the earl Marischal to hear the exhortations of this celebrated preacher; and they were so much affected with his reasonings and rhetoric, that they requested him to address the queen-regent upon the subject of the reformation of religion. In compliance with this request, he wrote a letter in very disagreeable terms; and the earl of Glencairn delivered it with his own hand, in the expectation that some advantage might in this manner be obtained for the reformed. But the queen-regent was no less offended with the freedom of the nobleman than of the preacher; and, after perusing the paper, she gave it to James Beaton archbishop of Glasgow, with an expression of disdain, "Here, my lord, is a pasquil."

556 Writes an offensive letter to the queen-regent. An. 1556.

557 Goes to Geneva, and is burnt in effigy.

Amidst these occupations, John Knox received an invitation to take the charge of the English congregation at Geneva; which he accepted. The clergy called on him in his absence, to appear before them, condemned him to death as a heretic, and ordered him to be burned in effigy.

558 Progress of the reformation.

This injurious treatment of John Knox did not in the least obstruct the progress of the reformation. Desertions were made from Popery in every town and village; and even many members of the church, both secular and regular, were forward to embrace the new principles, and to atone for their past mistakes by the most bitter railleries against the corruptions and the folly of the Romish faith. The priests were treated in all places with ridicule and contempt. The images, crucifixes, and relics, which served to rouse the decaying fervours of superstition, were taken from the churches, and trampled under foot. The bishops implored the assistance of the queen-regent. Citations were given to the preachers to appear in their defence. They obeyed; but with such a formidable retinue, that it was with difficulty she was permitted to apologize for her conduct. James Chalmers of Gaitgirth, pressing forward from the crowd, thus addressed her: "We vow to God, that the devices of the prelates shall not be carried into execution. We are oppressed to maintain them in their idleness. They seek to undo and murder our preachers and us; and we are determined to submit no longer to this wickedness." The multitude, applauding his speech, put their hands to their daggers.

A trusty messenger was despatched to Geneva, inviting John Knox to return to his own country. But in the infancy of their connexion, the Protestants being apprehensive of one another, uncertain in their councils, or being deserted by persons upon whom they had relied, it appeared to them that they had adopted this measure without a due preparation; and, by other despatches, Knox was requested to delay his journey for some time.

To this zealous reformer their unsteadiness was a matter of serious affliction; and in the answer he transmitted to their letters, he rebuked them with severity: but amidst this correction he intreated them not to faint under their purposes, from apprehensions of danger, which, he said, was to separate themselves from the favour of God, and to provoke his vengeance. To particular persons he wrote other addresses; and to all of them the greatest attention was paid. In 1557, a formal bond of agreement, which obtained the appellation of *the first covenant*, was entered into, and all the more eminent persons who favoured the reformation were invited to subscribe it. The earls of Argyle, Glencairn, and Morton, with the lord Lorn, and John Erskine of Dun, led the way, by giving it the sanction of their names. All the subscribers to this deed, renouncing the superstitions and idolatry of the church of Rome, promised to apply continually their whole power and wealth, and even to give up their lives, to forward and establish the word of God. They distinguished the reformed, by calling them the *Congregation of Christ*; and by the opprobrious title of the *Congregation of Satan*, they peculiarized the favourers of Popery.

559 The first covenant. An. 1557.

560 John Knox and Calvin invited into Scotland.

After the leaders of the reformation had subscribed the first covenant, they addressed letters to John Knox, urging in the strongest terms his return to Scotland; and, that their hopes of his assistance might not be disappointed, they sent an address to John Calvin, the celebrated reformer, begging him to join his commands to their intreaties. The archbishop of St Andrew's, who perceived the rising storm, was now in a difficult situation. A powerful combination threatened ruin to the church; and he had separated himself from the politics of the queen-regent. The zeal of the Roman Catholics pointed out strong measures to him; and his dispositions were pacific. The clergy were offended with his remissness and neglect of duty. The reformers detested his looseness of principles, and were shocked with the dissolute depravity of his life and conversation. He resolved to try the force of address, and did not succeed. He then resolved to be severe, and was still more unsuccessful.

561 The archbishop of St Andrew's attempts in vain to seduce the earl of Argyle.

The earl of Argyle was the most powerful of the reformed leaders. To allure him from his party, the archbishop of St Andrew's employed the agency of Sir David Hamilton. But the kindness he affected, and the advices he bestowed, were no compliment to the understanding of this nobleman; and his threats were regarded with contempt. The reformers, instead of losing their courage, felt a sentiment of exultation and triumph; and the earl of Argyle happening to die about this time, he not only maintained the new doctrines in his last moments, but intreated his son to seek for honour in promoting the public preaching of the gospel of Jesus Christ, and in the utter ruin of superstition and idolatry.

562 Walter Mill executed on account of religion.

It was determined by the archbishop and the prelates, that this disappointment should be succeeded by the furious persecution of the reformed. Walter Mill, a priest, had neglected to officiate at the altar; and having been long under the suspicion of heresy, was carried to St Andrew's, committed to prison, and accused before the archbishop and his suffragans. He was in extreme old age; and he had struggled all his life with poverty. He sunk not, however, under his fate. To the articles of his accusation he replied with signal recollection and fortitude. The firmness of his mind, in the emaciated state of his body, excited admiration. The insults of his enemies, and their contempt, served to discover his superiority over them. When the clergy declared him a heretic, no temporal judge could be found to condemn him to the fire. He was respited to another day; and

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so great sympathy prevailed for his misfortunes, that it was necessary to allure one of the archbishop's domestics to supply the place of the civil power, and to pronounce the sentence of condemnation. When brought to the stake, the resolution of this sufferer did not forsake him. He praised God, that he had been called to seal the truth with his life; and he conjured the people, as they would escape eternal death, not to be overcome by the errors and the artifices of monks and priests, abbots and bishops.

563 The Protestants resolve to assert their rights.

The barbarity of this execution affected the reformers with inexpressible horror. Measures for mutual defence were taken. The leaders of the reformation, dispersing their emissaries to every quarter, encouraged the vehemence of the multitude. The covenant to establish a new form of religion extended far and wide. The point of the sword, not the calm exertions of inquiry, was to decide the disputes of theology.

564 Petition the queen-regent.

When the leaders of the reformation were apprised of the ardent zeal of the people, and considered the great number of subscriptions which had been collected in the different counties of the kingdom, they assembled to deliberate concerning the steps to be pursued. It was resolved, accordingly, that a public and common supplication of the whole body of the Protestants should be presented to the queen-regent; which, after complaining of the injuries they had suffered, should require her to bestow upon them her support and assistance, and urge her to proceed in the work of a reformation. To explain their full meaning, a schedule, containing particular demands, was at the same time to be presented to her scrutiny. To Sir James Sandilands of Calder they committed the important charge of their manifesto and articles of reformation; and in appointing him to this commission, they consulted the respect which was due both to the government and to themselves. His character was in the highest estimation. His services to his country were numerous; his integrity and honour were above all suspicion; and his age and experience gave him authority and reverence.

The petition or supplication of the Protestants was expressed in strong but respectful terms. They told the queen-regent, that though they had been provoked by great injuries, they had yet, during a long period, abstained from assembling themselves, and from making known to her their complaints. Banishment, confiscation of goods, and death in its most cruel shape, were evils with which the reformed had been afflicted; and they were still exposed to these dreadful calamities. Compelled by their sufferings, they presumed to ask a remedy against the tyranny of the prelates and the estate ecclesiastical. They had usurped an unlimited domination over the minds of men. Whatever they commanded, though without any sanction from the word of God, must be obeyed. Whatever they prohibited, though from their own authority only, it was necessary to avoid. All arguments and remonstrances were equally fruitless and vain. The fire, the faggot, and the sword, were the weapons with which the church enforced and vindicated her mandates. By these, of late years, many of their brethren had fallen; and upon this account they were troubled and wounded in their consciences. For conceiving themselves to be a part of that power which God had established in this kingdom, it was their duty to have defended them, or to have concurred with them in an open avowal of their common religion. They now take the opportunity to make this avowal. They break a silence which may be misinterpreted into a justification of the cruelties of their enemies. And disdaining all farther dissimulation in matters which concern the glory of God, their present happiness, and their future salvation, they demand, that the original purity of the Christian religion shall be restored, and that the government shall be so improved, as to afford to them a security in their persons, their opinions, and their property.

With this petition or supplication of the Protestants, Sir James Sandilands presented their schedule of demands, or the preliminary articles of the reformation. They were in the spirit of their supplication, and of the following tenor.

565 Articles of the reformation.

I. It shall be lawful to the reformed to peruse the Scriptures in the vulgar tongue; and to employ also their native language in prayer publicly and in private.

II. It shall be permitted to any person qualified by knowledge, to interpret and explain the difficult passages in the Scriptures.

III. The election of ministers shall take place according to the rules of the primitive church; and those who elect shall enquire diligently into the lives and doctrines of the persons whom they admit to the clerical office.

IV. The holy sacrament of baptism shall be celebrated in the vulgar tongue, that its institution and nature may be the more generally understood.

V. The holy sacrament of the Lord's supper shall likewise be administered in the vulgar tongue; and in this communion, as well as in the ceremonial of baptism, a becoming respect shall be paid to the plain institution of Christ Jesus.

1. The wicked and licentious lives of the bishops and estate ecclesiastical shall be reformed; and if they discharge not the duties of true and faithful pastors, they shall be compelled to desist from their ministry and functions.

566 The Protestants flattered by the queen-regent.

The queen-regent now found it necessary to flatter the Protestants. She assured them by Sir James Sandilands, their orator or commissioner, that every thing they could legally desire should be granted to them; and that, in the mean time, they might, without molestation, employ the vulgar tongue in their prayers and religious exercises. But, upon the pretence that no encouragement might be given to tumults and riot, she requested that they would hold no public assemblies in Edinburgh or Leith. The Congregation, for this name was now assumed by the Protestants, were transported with these tender proofs of her regard; and while they sought to advance still higher in her esteem by the inoffensive quietness of their carriage, they were encouraged in the undertaking they had begun, and anxious to accomplish the work of the reformation.

567 They offer to dispute with the clergy.

Nor to the clergy, who at this time were holding a provincial council at Edinburgh, did the Congregation scruple to communicate the articles of the intended reformation. The clergy received their demands with a storm of rage, which died away in an innocent debility. Upon recovering from their passions, they offered to submit the controversy between them and the reformed to a public disputation. The Congregation did not refuse this mode of trial; and desired, as their only conditions,

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ditions, that the Scriptures might be considered as the standard of orthodoxy and truth, and that those of their brethren who were in exile and under persecution might be permitted to assist them. These requests, though highly reasonable, were not complied with; and the church would allow of no rule of right but the canon law and its own councils. Terms of reconciliation were then offered on the part of the estate ecclesiastical. It held out to the Protestants the liberty of praying and administering the sacraments in the vulgar tongue, if they would pay reverence to the mass, acknowledge purgatory, invoke the saints, and admit of petitions for the dead. To conditions so ineffectual and absurd the Congregation did not deign to return any answer.

The meeting of parliament approached. The parties in contention were agitated with anxieties, apprehensions, and hopes. An expectation of a firm and open assistance from the queen-regent gave courage to the reformed; and, from the parliamentary influence of their friends in the greater and the lesser baronage, they expected the most important services. They drew up with eagerness the articles which they wished to be passed into a law; and as the spirit and sense of their transactions are to be gathered in the completest manner from the papers which were framed by themselves, it is proper to attend to them with exactness. Their petitions were few and explicit.

568 Present their articles to the queen-regent.

I. They could not, in consequence of principles which they had embraced from a conviction of their truth, participate in the Romish religion. It was therefore their desire, that all the acts of parliament, giving authority to the church to proceed against them as heretics, should be abrogated; or, at least, that their power should be suspended till the disputes which had arisen were brought to a conclusion.

II. They did not mean that all men should be at libert to profess what religion they pleased, without the control of authority. They consented that all transgressors in matters of faith should be carried before the temporal judge. But it was their wish that the clergy should have the power of accusing; and they thought it conformable to justice, that a copy of the criminal charge should be lodged with the party upon trial, and that a competent time should be allowed him to defend himself.

III. They insisted, that every defence consistent with law should be permitted to the party accused; and that objections to witnesses, founded in truth and reason, should operate in his favour.

IV. They desired that the party accused should have permission to interpret and explain his own opinions; and that his declaration should carry a greater evidence than the deposition of any witness; as no person ought to be punished for religion, who is not obstinate in a wicked or damnable tenet.

V. In fine, they urged, that no Protestant should be condemned for heresy, without being convicted by the word of God, of the want of that faith which is necessary to salvation.

The Congregation presented these articles to the queen-regent, expecting that she would not only propose them to the three estates assembled in parliament, but employ all her influence to recommend them. But finding themselves disappointed, they began to doubt her sincerity; and they were sensible that their petitions, though they should be carried in parliament, could not pass into a law without her consent. They therefore abstained from presenting them; but as their complaints and desires were fully known in parliament, they ordered a solemn declaration to be read there in their behalf, and demanded that it should be inserted in the records of the nation. In this declaration, after expressing their regret at having been disappointed in their scheme of reformation, they protested, that no blame should be imputed to them for continuing in their religion, which they believed to be founded in the word of God; that no danger of life, and no political pains should be incurred by them, for disregarding statutes which support idolatry, and for violating rites which are of human invention; and that, if insurrections and tumults should disturb the realm, from the diversity of religious opinions, and if abuses should be corrected by violence, all the guilt, disorder, and inconvenience thence arising, instead of being applied to them, should be ascribed to those solely who had refused a timely redress of wrongs, and who had despised petitions presented with the humility of faithful subjects, and for the purposes of establishing the commandments of God, and a most just and salutary reformation.

569 Protest against her proceedings.

The three estates received this formidable protest with attention and respect; but the intention of inserting it in the national records was abandoned by the Congregation, upon a formal promise from the queen-regent, that all the matters in controversy should speedily be brought by her to a fortunate issue.

While the Protestants were thus making the most vigorous exertions in behalf of their spiritual liberties, the queen-regent, in order to establish herself the more effectually, used every effort to promote the marriage of her daughter with the dauphin of France. In 1557, commissioners were appointed to negociate this marriage; but while these negociations were going on, the court of France acted in the most perfidious manner. At the age of 15, after solemnly ratifying the independence of Scotland, and the succession of the crown in the house of Hamilton, Queen Mary was influenced by the king and her uncles the princes of Lorraine to sign privately three extraordinary deeds or instruments. By the first she conveyed the kingdom of Scotland to the king of France and his heirs, in default of children of her own body. By the second she assigned him, if she should die without children, the possession of Scotland, till he should receive a million of pieces of gold, or be amply recompensed for the sums expended by him in the education of the queen of Scotland in France. By the third she confirmed both these grants in an express declaration, that they contained the pure and genuine sentiments of her mind; and that any papers which might be obtained, either before or after her marriage, by means of the Scottish parliament, should be invalid, and of no force or efficacy. On the 24th of April, the nuptials were celebrated; and the dauphin, Francis, was allowed to assume the title of king of Scotland. The French court demanded for him the crown and other ensigns of royalty belonging to Scotland; but the commissioners had no power to comply with this demand. It was then desired, that when they returned home, they should use all their influence to procure the crown matrimonial of Scotland for the dauphin.

570 Perfidious conduct of the court of France.

571 Marriage of the queen of Scots with the dauphin of France.

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dauphin. This also was refused: the court of France was disgusted; and four of the commissioners died, it was supposed of poison, given them by the princes of Lorraine. This subject, however, was pressed on the return of the surviving commissioners, by the king of France himself, the queen of Scotland, and the queen-regent. The Protestants also joined their interest, hoping by that means to gain over the queen and queen-regent to their party; so that an act of parliament was at length passed, by which the crown matrimonial was given to the dauphin during the time of his marriage with Queen Mary; but without any prejudice to the liberties of the kingdom, to the heirs of her body, or to the order of succession. With so many restraints, it is difficult to see the advantages which could accrue from this gift so earnestly sought after; and it is very probable, that the usurpations of France in consequence of it, would have been productive of many disturbances; but these were prevented by the death of Francis in December 1560.

572 He obtains the crown of Scotland, but under certain restrictions.

Before this event took place, however, Scotland was, by the intrigues of France, involved in confusion on another account. After the death of Mary queen of England, and daughter to Henry VIII, the princes of Guise insisted on the claim of Mary queen of Scots to the crown of England, in preference to that of Elizabeth, whom they looked on as illegitimate. This claim was supported by the king of France, who prevailed with the queen of Scots to assume the title of queen of England, and to stamp money under that character. The arms of England were quartered with those of France and Scotland; and employed as ornaments for the plate and furniture of Mary and the dauphin. Thus was laid the foundation of an irreconcileable quarrel between Elizabeth and Mary; and to this, in some measure, is to be ascribed the inveteracy with which the former persecuted the unhappy queen of Scotland, whenever she had it in her power.

573 The queen of Scots claims the crown of England,

574 which lays the foundation of a quarrel with Elizabeth.

But while they imprudently excited a quarrel with England, they still more imprudently quarrelled with the majority of the people of Scotland. As Elizabeth professed the Protestant religion, it was easily foreseen, that the *Congregation*, or body of the reformed in Scotland, would never consent to act against her in favour of a popish power; and as they could not be gained, it was resolved to destroy them at once, by putting to death all their leaders. The queen-regent gave intimation of her design to re-establish Popery, by proclaiming a solemn observance of Easter, receiving the sacrament according to the Romish communion, herself, and commanding all her household to receive it in the same manner. She next expressed herself in a contemptuous manner against the reformed, affirmed that they had insulted the royal dignity, and declared her intention of restoring it to its ancient lustre. The preachers of the Congregation were next cited to appear at Stirling, to answer the charges which might be brought against them. Alexander earl of Glencairn, and Sir Hugh Campbell of Loudon, were deputed to admonish her not to persecute the preachers, unless they had been obnoxious by circulating erroneous doctrines, or disturbing the peace of government. The queen-regent in a passion told them, that the preachers should all be banished from Scotland, though their doctrines might be as sound as those of St Paul. The deputies urged her former kind behaviour and promises; but the queen-regent answered, that "the promises of princes ought not to be exacted with rigour, and that they were only binding when subservient to their convenience and pleasure." To this they replied, that in such a case they could not look on her as their sovereign, and must renounce their allegiance as subjects.

575 Scheme to destroy all the leaders of the Protestant party in Scotland.

576 Treacherous behaviour of the queen-regent.

577 Proceedings against the Protestants.

Soon after this transaction, the queen-regent received the news that the reformation was established in Perth. Lord Ruthven the provost of the city was summoned to answer for this innovation; but his reply was, that he had no dominion over the minds and consciences of men. The provost of Dundee, being ordered to apprehend an eminent preacher, named *Paul Methven*, sent him intelligence of the order, that he might provide for his safety. The proclamation for observing Easter was everywhere despised and neglected, and people exclaimed against the mass as an idol. New citations, in the mean time, had been given to the preachers to appear at Stirling. They obeyed the summons; but attended by such multitudes, that the queen-regent, dreading their power, though they were without arms, intreated Mr Erskine of Dun, whom they had sent before as a deputy, to stop their march; assuring him that all proceedings against the preachers should be stopped. In consequence of this, the multitude dispersed; yet, when the day came on which the preachers should have appeared, the queen regent, with unparalleled folly and treachery, caused them to be declared traitors, and proclaimed it criminal to afford them any subsistence.

578 They become formidable by their numbers.

Mr Erskine, exasperated by this shameful conduct, hastened to the Congregation, apologized for his conduct, and urged them to proceed to the last extremities. At this critical period John Knox returned from Geneva, and joined the Congregation at Perth. The great provocations which the Protestants had already received, joined to the impetuous passions of the multitude, were now productive of the greatest disorders. Images were destroyed, monasteries pulled down, and their wealth either seized by the mob or given to the poor. The example of Perth was followed by Cupar in Fife: and similar insurrections being apprehended in other places, the queen-regent determined to punish the inhabitants of Perth in the most exemplary manner. With this view she collected an army: but being opposed with a formidable power by the Protestants, she thought proper to conclude an agreement. The Protestants, however, dreaded her insincerity; and therefore entered into a new covenant to stand by and defend each other. Their fears were not groundless. The queen-regent violated the treaty almost as soon as it was made, and began to treat the Protestants with severity. The earl of Argyle, and the prior of St Andrew's, who about this time began to take the title of *Lord James Stuart*, now openly headed the Protestant party, and prepared to collect their whole strength. The queen-regent opposed them with what forces she had, and which indeed chiefly consisted of her French auxiliaries; but, being again afraid of coming to an engagement, she consented to a truce until commissioners should be sent to treat with the lords for an effectual peace. No commissioners, however, were sent on her part; and the nobles, provoked at such complicated and unceasing treachery,

579 John Knox returns to Scotland.

580 Second covenant. Treachery of the queen-regent.

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581 Perth taken by the Protestants.

treachery, resolved to push matters to the utmost extremity. The first exploit of the reformed was the taking of the town of Perth, where the queen-regent had placed a French garrison. The multitude, elated with this achievement, destroyed the palace and abbey of Scone, in spite of all the endeavours of their leaders, even of John Knox himself, to save them. The queen-regent, apprehensive that the Congregation would commit farther ravages to the southward, resolved to throw a garrison into Stirling; but the earl of Argyle and Lord James Stuart were too quick for her, and arrived there the very day after the demolition of the abbey and palace of Scone. The people, incapable of restraint, and provoked beyond measure by the perfidious behaviour of the Catholic party, demolished all the monasteries in the neighbourhood, together with the fine abbey of Cambuskenneth, situated on the north bank of the Forth. From Stirling they went to Linlithgow, where they committed their usual ravages; after which, they advanced to Edinburgh. The queen-regent, alarmed at their approach, fled to Dunbar; and the Protestants took up their residence in Edinburgh.

582 The queen-regent flies to Dunbar, and the Protestants become masters of Edinburgh.

Having thus got possession of the capital, the Congregation assumed to themselves the ruling power of the kingdom, appointed preachers in all the churches, and seized the mint, with all the instruments of coining. The queen-regent, unable to dispute the matter in the field, published a manifesto, in which she set forth their seditious behaviour, commanding them to leave Edinburgh within six hours, and enjoining her subjects to avoid their society under the penalties of treason. The Congregation having already lost somewhat of their popularity by their violent proceedings, were now incapable of contending with government. As they had not established themselves in any regular body, or provided a fund for their support, they felt their strength decay, and multitudes of them returned to their habitations. Those who remained found themselves obliged to vindicate their conduct; and, in an address to the regent, to disclaim all treasonable intentions. Negociations again took place, which ended as usual; the queen-regent, who had taken this opportunity of collecting her forces, marched against the Congregation on the 23d of July 1559. The Protestants now found themselves incapable of making head against their enemies; and therefore entered into a negociation, by which all differences were for the present accommodated. The terms of this treaty were, that the town of Edinburgh should be open to the queen-dowager and her attendants; that the palace of Holyroodhouse and the mint should be delivered up to her; that the Protestants should be subject to the laws, and abstain from molesting the Catholics in the exercise of their religion. On the queen's part, it was agreed, that the Protestants should have the free exercise of their religion, and that no foreign troops should enter the city of Edinburgh.

583 They lose their popularity, and fall into distress.

584 A treaty concluded. An. 1559.

Notwithstanding this treaty, however, the reformed had no confidence in the queen's sincerity. Having heard of the death of Henry II. of France, which took place on the 8th of March 1559, and the accession of Francis II. and Mary to the throne of that kingdom, they seem to have apprehended more danger than ever. They now entered into a third covenant; in which they engaged to refuse attendance to the queen-dowager, in case of any message or letter; and that immediately on the receipt of any notice from her to any of their number, it should be communicated without reserve, and be made a common subject of scrutiny and deliberation. It was not long before they had occasion for all their constancy and strength. The queen-regent repented of the favourable terms she had granted the reformed; and being denied the favour which she requested of saying mass in the high-church of Edinburgh, she ordered them to be everywhere disturbed in the exercise of their religion.

585 Third covenant.

586 The treaty broken by the queen-regent.

In this imprudent measure the queen-regent was confirmed by letters which now came from Francis and Mary, promising a powerful army to support her interests. The envoy who brought these despatches also carried letters to the lord James Stuart, now the principal leader of the Protestants, and natural brother to the queen. The letters were filled with reproaches and menaces, mixed with entreaties; and, along with them, the envoy delivered a verbal message, that the king his master was resolved rather to expend all the treasures of France than not to be revenged on the rebellious nobles who had disturbed the peace of Scotland. The lord James Stuart was not to be frightened by these menaces. He returned a cool and deliberate answer, apologizing for the Protestants, and vindicating them from the charge of rebellion; but at the same time intimating his full resolution of continuing to head the reformed as he had already done.

587 France supports the Catholic party.

The letters of Francis and Mary were soon followed by 1000 French soldiers, with money and military stores; and the commander was immediately despatched again to France, to solicit the assistance of as many more soldiers, with four ships of war, and 100 men-at-arms. But before he could set out, La Brosse, another French commander, arrived with 2000 infantry; and, that the Congregation might be defeated not only by arms but in disputation, the same ship brought three doctors of the Sorbonne, to show the pernicious tendency of the new doctrines. Thus matters were pushed on beyond all hopes of reconciliation. The nation was universally alarmed on account of the introduction of French troops, to which they saw no end. The queen-regent attempted to quiet the minds of the public by a proclamation: but their fears increased the more. The Congregation assembled at Stirling, where they were joined by the earl of Arran, and soon after by his father the duke of Chatelherault. They next deliberated on the measures to be followed with the queen-regent; and the result of their consultations was, that an expostulatory letter should be addressed to her. This was accordingly done; but as the queen behaved with her usual duplicity, the nobles called the people to arms. Mutual manifestoes were now published; and both parties prepared to decide the contest by the sword. The Congregation having seized Broughty castle, marched thence to Edinburgh. The queen-regent retired to Leith, which she had fortified and filled with French troops. Thither the nobles sent their last message to her, charging her with a design to overthrow the civil liberties of the kingdom. They requested her to command her Frenchmen and mercenaries to depart from Leith, and to make that place open, not only to the inhabitants who had been dispossessed of their houses, but to all the inhabitants of Scotland.

588 French auxiliaries arrive, which alarms the nation. An. 1560.

589 The nobles send their last message to the queen-regent.

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They declared, that her denial of this request should be considered by them as a proof of her intention to reduce the kingdom to slavery; in which case, they were determined to employ their utmost power to preserve its independence. Two days after this message, the queen-regent sent to them the lord Lyon, whom she enjoined to tell them, that she considered their demand not only as presumptuous, but as an encroachment on the royal authority; that it was an indignity to her to be dictated to by subjects; that Frenchmen were not to be treated as foreigners, being entitled to the same privileges with Scotsmen; and that she would neither disband her troops, nor command the town of Leith to be made open. The lord Lyon then, in the name of the queen-regent, commanded the lords of the Congregation to depart from Edinburgh, and disperse, under the pain of high treason. The Protestants, irritated by this answer, after some deliberation degraded the queen-regent; and for this purpose the nobility, barons, and burgesses, all agreed in subscribing an edict, which was sent to the principal cities in Scotland, and published in them.

590 Receive an unfavourable answer.

591 They degrade her from her office, and lay siege to Leith.

The next step taken by the Congregation was to summon Leith to surrender; but meeting with defiance instead of submission, it was resolved to take the town by scalade. For this service ladders were made in the church of St Giles; a business which, interrupting the preachers in the exercise of public worship, made them prognosticate misfortune and miscarriage to the Congregation. In the displeasure of the preachers, the common people found a source of complaint; and the emissaries of the queen-dowager acting with indefatigable industry to divide her adversaries, and to spread chagrin and dissatisfaction among them, discontent, animosity, and terror, came to prevail to a great degree. The duke of Chatelherault discouraged many by his example. Defection from the Protestants added strength to the queen-dowager. The most secret deliberations of the confederated lords were revealed to her. The soldiery were clamorous for pay; and it was very difficult to procure money to satisfy their claims. Attempts to sooth and appease them, discovering their consequence, engendered mutinies. They put to death a domestic of the earl of Argyle, who endeavoured to compose them to order: they insulted several persons of rank who discovered a solicitude to pacify them; and they even ventured to declare, that, for a proper reward, they were ready to suppress the Reformation, and to re-establish the mass.

592 Divisions take place among them.

593 They fall into distress and treat with queen Elizabeth.

It was absolutely necessary to give satisfaction to the Protestant soldiers. The lords and gentlemen of the Congregation collected a considerable sum among them; but it was not equal to the present exigency. The avarice of many taught them to withhold what they could afford, and the poverty of others did not permit them to indulge their generosity. It was resolved, that each nobleman should surrender his silver-plate to be coined. By the address, however, of the queen-dowager, the officers of the mint were bribed to conceal, or to convey to a distance, the stamps and instruments of coinage. A gloomy despair gave disquiet to the Congregation, and threatened their ruin. Queen Elizabeth, with whose ministers the confederated lords maintained a correspondence at this time, had frequently promised them her assistance; but they could not now wait the event of a deputation to the court of England. In an extremity so pressing, they therefore applied for a sum of money to Sir Ralph Sadler and Sir James Croft, the governors of Berwick; and Cockburn of Ormiston, who was entrusted with this commission, obtained from them a supply of 4000 crowns. Traitors, however, in the councils of the Congregation, having informed the queen-dowager of his errand and expedition, the earl of Bothwell, by her order, intercepted him upon his return, discomfited his retinue, and made a prize of the English subsidy.

594 English subsidy taken by the queen-regent.

To rouse the spirit of the party, an attack was projected upon Leith, and some pieces of artillery were planted against it. But before any charge could be made, the French soldiers sallied out to give battle to the troops of the Congregation, possessed themselves of their cannon, and drove them back to Edinburgh. A report that the victors had entered this city with the fugitives, filled it with disorder and dismay. The earl of Argyle and his Highlanders hastened to recover the honour of the day, and harassed the French in their retreat. This petty conflict, while it elated the queen-dowager, served to augment the despondence of the Protestants.

595 The Protestants defeated.

Vain of their prowess, the French made a new sally from Leith, with a view to intercept a supply of provisions and stores for the Congregation. The earl of Arran and the lord James Stuart advanced to attack them, and obliged them to retire. But pursuing them with too much precipitation, a fresh body of French troops made its appearance. It was prudent to retreat, but difficult. An obstinate resistance was made. It was the object of the French to cut off the soldiery of the Congregation from Edinburgh, and by these means to divide the strength of that station. The earl of Arran and the lord James Stuart had occasion for all their address and courage. Though they were able, however, to effect their escape, their loss was considerable, and the victory was manifestly on the side of their adversaries.

596 The Protestants again defeated.

About this time William Maitland of Lethington, secretary to the queen-dowager, withdrew secretly from Leith, and joined himself to the confederated nobles. He had been disgusted with the jealousies of the French counsellors, and was exposed to danger from having embraced the doctrines of the reformed. His reception was cordial, and corresponded to the opinion entertained of his wisdom and experience. He was skilled in business, adorned with literature, and accustomed to reflection. But as yet it was not known that his want of integrity was in proportion to the greatness of his talents.

597 Maitland the queen-dowager's secretary, revolts to the Protestants.

The accession of this statesman to their party could not console the lords of the Congregation for the unpromising aspect of their affairs. The two discomfitures they had received sunk deeply into the minds of their followers. Those who affected prudence, retired privately from a cause which they accounted desperate; and the timorous fled with precipitation. The wailings and distrust of the brethren were melancholy and infectious; and by exciting the ridicule and scorn of the partisans of the queen-dowager, were augmented the more. A distress not to be comforted seemed to have invaded the Protestants; and the associated nobles consented to abandon the capital. A little after midnight, they retired

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598 They retire from Edinburgh to Stirling.

599 John Knox encourages them.

tired from Edinburgh; and so great was the panic which prevailed, that they marched to Stirling without making any halt.

John Knox, who had accompanied the Congregation to Stirling, anxious to recover their unanimity and courage, addressed them from the pulpit. He represented their misfortunes as the consequences of their sins; and entreating them to remember the goodness of their cause, assured them, in the end, of joy, honour, and victory. His popular eloquence corresponding to all their warmest wishes, diffused satisfaction and cheerfulness. They passed from despair to hope. A council was held, in which the confederated nobles determined to solicit, by a formal embassy, the aid of Queen Elizabeth. Maitland of Lethington, and Robert Melvil, were chosen to negociate this important business; and they received the fullest instructions concerning the state and difficulties of the Congregation, the tyrannical designs of the queen-dowager, and the danger which threatened England from the union of Scotland with France.

600 Elizabeth determines to assist the reformers.

The queen of England having maturely considered the case, determined to assist the reformers; whose leaders now dispersed, and went to different parts of the kingdom, to employ their activity there for the common cause. The queen-dowager, imagining that the lords were fled, conceived great hopes of being able at once to crush the reformed. Her sanguine hopes, however, were soon checked, on receiving certain intelligence that Queen Elizabeth was resolved to assist them. She now took the best measures possible, as circumstances then stood; and determined to crush her enemies before they could receive any assistance from England. Her French troops took the road to Stirling, and wasted in their march all the grounds which belonged to the favourers of the reformation. After renewing their depredations at Stirling, they passed the bridge; and proceeding along the side of the river, exercised their cruelties and oppressions in a district which had distinguished itself by an ardent zeal against popery. While the terror of their arms was thus diffusing itself, they resolved to seize on the town and castle of St Andrews, which they considered as an important military station, and as a convenient place of reception for the auxiliaries which they expected from France.

601 The French troops waste the estates of the reformers.

602 They are opposed with success by Lord James Stuart.

But the lord James Stuart exerted himself to interrupt their progress and frustrate their attempts; and it was his object at the same time to keep the force of the Congregation entire, to hazard no action of importance, and to wait the approach of the English army. A small advantage was obtained by the French at Petticur; and they possessed themselves of Kinghorn. The lord James Stuart, with 500 horse and 100 foot, entered Dysart. With this inconsiderable force he proposed to act against an army of 4000 men. His admirable skill in military affairs, and his great courage, were eminently displayed. During 20 days he prevented the march of the French to St Andrews, intercepting their provisions, harassing them with skirmishes, and intimidating them by the address and the boldness of his stratagems.

Monsieur d'Oysel, enraged and ashamed at being disconcerted and opposed by a body of men so disproportioned to his army, exerted himself with vigour. The lord James Stuart was obliged to retire. Dysart and Wemyss were delivered up to the French troops to be pillaged; and when d'Oysel was in full march to St Andrews, he discovered a powerful fleet bearing up the frith. It was concluded, that the supplies expected from France were arrived. Guns were fired by his soldiers, and their joy was indulged in all its extravagance. But this fleet having taken the vessels which contained their provisions, and the ordnance with which they intended to improve the fortifications of the castle at St Andrews, an end was put to their rejoicings. Certain news was brought, that the fleet they observed was the navy of England, which had come to support the Congregation. A consternation, heightened by the giddiness of their preceding transports, invaded them. Monsieur d'Oysel now perceived the value and merit of the service which had been performed by the lord James Stuart; and thinking no more of St Andrews and conquest, fled to Stirling, in his way to Leith, from which he dreaded to be intercepted; but he reached that important station after a march of three days.

603 Arrival of the English fleet.

604 The French general flies.

605 Treaty between Elizabeth and the Scots Protestants.

A formal treaty was now concluded between the lords of the Congregation and Queen Elizabeth; and in the mean time the queen-dowager was disappointed in her expectations from France. The violent administration of the house of Guise had involved that nation in troubles and distress. Its credit was greatly sunk, and its treasury nearly exhausted. Persecutions, and the spirit of Calvinism, produced commotions and conspiracies; and amidst domestic and dangerous intrigues and struggles, Scotland failed to engage that particular distinction which had been promised to its affairs. It was not, however, altogether neglected. The count de Martigues had arrived at Leith with 1000 foot and a few horse. The marquise d'Elbeuf had embarked for it with another body of soldiers; but, after losing several ships in a furious tempest, was obliged to return to the haven whence he had sailed.

606 The queen regent disappointed in her expectations from France.

607 She is deserted by great numbers of her subjects.

In this sad reverse of fortune many forsook the queen-dowager. It was now understood that the English army was on its march to Scotland. The Scottish lords who had affected a neutrality, meditated an union with the Protestants. The earl of Huntly gave a solemn assurance that he would join them. Proclamations were issued throughout the kingdom, calling on the subjects of Scotland to assemble in arms at Linlithgow, to re-establish their ancient freedom, and to assist in the utter expulsion of the French soldiery.

608 The princes of Lorraine attempt to negociate with Queen Elizabeth in vain.

The English fleet in the mean time, under Winter the vice-admiral, had taken and destroyed several ships, had landed some troops upon Inchkeith, and discomfited a body of French mercenaries. On being apprised of these acts of hostility, the princes of Lorraine despatched the chevalier de Seure to Queen Elizabeth, to make representations against this breach of peace, and to urge the recal of her ships. This ambassador affected likewise to negociate concerning the evacuation of Scotland by the French troops, and to propose methods by which the king of France might quarter the arms of England without doing a prejudice to Queen Elizabeth; but to prevent the execution of vigorous resolutions against the queen-dowager, and to gain time, were the only objects which he had in view. With similar intentions, John Monluc bishop of Valence, a man of greater address and ability, and equally devoted to the house

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house of Guise, was also sent at this time to the court of England. Queen Elizabeth, however, and her ministers, were too wise to be amused by artifice and dexterity. The lord Grey entered Scotland with an army of 1200 horse and 6000 foot; and the lord Scroop, Sir James Croft, Sir Henry Percy, and Sir Francis Lake, commanded under him. By a cruel policy, the queen-dowager had already wasted all the country around the capital. But the desolation which she had made, while it was ruinous to the Scottish peasants, affected not the army of England. The leaders of the Congregation did not want penetration and foresight, and had themselves provided against this difficulty. The duke of Chatelherault, the earls of Argyle, Glencairn, and Menteith, the lord James Stuart, and the lords Ruthven, Boyd, and Ochiltree, with a numerous and formidable force, joined the English commander at Preston.

609 An English army enters Scotland.

Struck with the sad condition of her affairs, despairing of a timely and proper succour from France, and reminded by sickness of her mortality, the queen-dowager retired from Leith to the castle of Edinburgh, and put herself under the protection of the lord Erskine. At the period when she was appointed to the regency, the lord Erskine had received from the three estates the charge of this important fortress, with the injunction to hold it till he should know their farther orders; and he giving way to the solicitations of neither faction, had kept it with fidelity. By admitting the queen-dowager, he yielded to sentiments of honour and humanity, and did not mean to depart from his duty. Only a few of her domestics accompanied her, with the archbishop of St Andrew's, the bishop of Dunkeld, and the earl Marischal.

610 The queen-dowager retires to Edinburgh castle.

The confederated nobles now assembled at Dalkeith to hold a council; and conforming to those maxims of prudence and equity which, upon the eve of hostilities, had been formerly exercised by them, they invited the queen-dowager to an amicable conclusion of the present troubles. In a letter which they wrote to her, they called to her remembrance the frequent manifestos and messages in which they had pressed her to dismiss the French soldiery, who had so long oppressed the lower ranks of the people, and who threatened to reduce the kingdom to servitude. The aversion, however, with which she had constantly received their suit and prayers, was so great, that they had given way to a strong necessity, and had intreated the assistance of the queen of England to expel these strangers by force of arms. But though they had obtained the powerful protection of this princess, they were still animated with a becoming respect for the mother of their sovereign; and, abhorring to stain the ground with Christian blood, were disposed once more to solicit the dismission of these mercenaries, with their officers. And that no just objection might remain against the grant of this last request, they assured her, that a safe passage by land, to the ports of England, should be allowed to the French; or that, if they judged it more agreeable, the navy of Queen Elizabeth should transport them to their own country. If these proposals should be rejected, they appealed and protested to God and to mankind, that it should be understood and believed, that no motive of malice, or hatred, or wickedness of any kind, had induced them to employ the fatal expedient of arms and battles; but that they had been compelled to this disagreeable and distressful remedy, for the preservation of their commonwealth, their religion, their persons, their estates, and their posterity. They begged her to weigh the equity of their petition, to consider the inconveniences of war, and to think of the rest and quiet which were necessary to relieve the afflictions of her daughter's kingdom; and they besought her to embalm her own memory, by an immortal deed of wisdom, humanity, and justice.

611 The Protestants invite her to an accommodation.

To give authority and weight to the letter of the associated lords, the lord Grey directed Sir George Howard and Sir James Croft to wait on the queen-dowager and stipulate the peaceable departure of the English troops, on condition that the French mercenaries should be immediately dismissed from her service, and prohibited from residing in Scotland. Returning no direct answer to the applications made to her, she desired time to deliberate upon the resolution which it became her to adopt. This equivocal behaviour corresponded with the spirit of intrigue which had uniformly distinguished the queen-dowager; and it is probable, that her engagements with France did not permit her to be open and explicit.

612 She still behaves with insincerity.

The combined armies marched towards Leith. A body of the French, posted on a rising ground called *Hawk-hill*, disputed their progress. During five hours the conflict was maintained with obstinate valour. At length the Scottish horsemen charged the French with a fury which they were unable to resist. They fled to Leith with precipitation; and might have been cut off from it altogether, if the English cavalry had exerted themselves. Three hundred of the French soldiers perished in this action, and a few combatants only fell on the side of the Congregation.

613 The French defeated by the Protestant allies.

Leith was invested. The pavilions and tents of the English and Scottish nobility were planted at Restalrig, and around it. Trenches were cast; and the ordnance from the town annoying the combined armies, a mount was raised, upon which eight cannons were erected. A continued fire from these, against St Anthony's tower in South Leith, being kept up and managed with skill, the walls of this fabric were shaken, and the French found it necessary to dismount their artillery.—Negligent from security, and apprehensive of no attack, the English and Scottish officers occupied themselves in amusements, and permitted a relaxation of military discipline. The French, informed of this supineness and levity, made a sally from Leith. While some of the captains were diverting themselves at Edinburgh, and the soldiery were engaged at dice and cards, they entered the trenches unobserved, and, improving their advantage, put 600 men to the sword. After this slaughter, the Protestants were more attentive to their affairs.—Mounts were built at proper distances, and these being fortified with ordnance, served as places of retreat and defence in the event of sudden incursions; and thus they continued the blockade in a more effectual manner.

614 who lay siege to Leith.

615 A party of them cut off.

The army under the marquis D'Elbeuf, promised so often to the queen-regent, was in vain expected by her; but she received, at this time, supplies in money and military stores; and Monluc, bishop of Valence, though defeated in dexterity by Elizabeth and her ministers, had arrived in Scotland to try once more the arts of delay

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616 Fruitless negociation with England.

delay and negociation. Conferences were held by him with the queen-dowager, with the English commanders, and with the confederated nobles; but no contract or agreement could be concluded. His credentials extended neither to the demolition of Leith, nor to the recal of the French mercenaries: and though he obtained powers from his court to consent to the former of these measures, they were yet burdened with conditions which were disgraceful to the Congregation; who, in the present prosperous state of their affairs, were not disposed to give up any of the objects for which they had struggled so long, and to the attainment of which they now looked forward with a settled hope and expectation.

Though the grave and measured orations of Monlue could not overpower the plain and stubborn sense of the Congregation, yet as he affected to give them admonitions and warnings, and even ventured to insult them with menaces, they appear to have conceived a high indignation against him. Under this impulse, and that, in so advanced a stage of their affairs, they might exhibit the determined firmness of their resolutions, and bind to them by an indissoluble tie the earl of Huntly and the other persons who had joined them in consequence of the English alliance, they thought of the assurance and stability of a *new league and covenant*, more solemn, expressive, and resolute, than any which they had yet entered into and subscribed.

617 The fourth covenant.

The nobles, barons, and inferior persons, who were parties to this bond and association, bound themselves in the presence of Almighty God, as a society, and as individuals, to advance the reformation of religion, and to procure, by all possible means, the true preaching of the gospel, with the proper administration of the sacraments, and the other ordinances in connexion with it. Deeply affected, at the same time, with the misconduct of the French statesmen, who had been promoted to high offices; with the oppressions of the French mercenaries, whom the queen-dowager kept up and maintained under the colour of authority; with the tyranny of their officers; and with the manifest danger of conquest to which the country was exposed, by different fortifications on the sea-coast, and by other dangerous innovations; they promised and engaged, collectively and individually, to join with the queen of England's army, and to concur in an honest, plain, and unreserved resolution of expelling all foreigners from the realm, as oppressors of public liberty; that, by recovering the ancient rights, privileges, and freedom of their nation, they might live for the future under the due obedience of their king and queen, be ruled by the laws and customs of the country, and by officers and statesmen born and educated among themselves. It was likewise contracted and agreed by the subscribers to this bond and covenant, that no private intelligence by writing or message, or communication of any kind, should be kept up with their adversaries; and that all persons who resisted the godly enterprise in which they were united, should be regarded as their enemies, and reduced to subjection.

618 The queen-dowager gives herself up to despair.

When the strong and fervid sentiment and expression of this new association were communicated to the queen-dowager, she abandoned herself to sorrow. Her mind, inclined to despondence by the increase of her malady, felt the more intensely the cruel distractions and disquiets into which the kingdom had been driven by the ambition of France, her own doating affection for the princes of Lorraine, and the vain prognostications of flatterers and courtiers. In the agony of passion, she besought the malediction and curse of God to alight upon all those who had counselled her to persecute the preachers, and to refuse the petitions of the most honourable portion of her subjects.

In the mean time the siege of Leith was prosecuted. But the strength of the garrison amounting to more than 4000 soldiers, the operations of the besiegers were slow and languid. An accidental fire in the town, which destroyed many houses and a great part of the public granary, afforded them an opportunity of playing their artillery with some advantage; and, a few days after, they made a general assault. But the scaling-ladders which were applied to the walls being too short, and Sir James Croft, who had been gained over to the queen-dowager, having acted a treacherous part, the attempt failed of success, and 1000 men were destroyed. The combined armies, however, did not lose their resolution or their hopes. The English and Scots animated the constancy of each other; and in the ratification of the treaty of Berwick, which was now made, a new source of cordiality opened itself. Letters had also come from the duke of Norfolk, promising a powerful reinforcement, giving the expectation of his taking on himself the command of the troops, and ordering his pavilion to be erected in the camp. Leith began to feel the misery of famine, and the French gave themselves up to despair. The besiegers abounded in every thing; and the arrival of 2000 men, the expected reinforcement from England, gave them the most decisive superiority over their adversaries. Frequent sallies were made by the garrison, and they were always unsuccessful. Discouraged by defeats, depressed with the want of provisions, and languishing under the negligence of France, they were ready to submit to the mercy of the Congregation.

619 The Protestants make an unsuccessful attack on Leith.

620 A reinforcement arrives from England.

Amidst this distress the queen-dowager, wasted with a lingering distemper and with grief, expired in the castle of Edinburgh. A few days before her death, she invited to her the duke of Chatelherault, the lord James Stuart, and the earls of Argyle, Glencairn, and Marischal, to bid them a last adieu. She expressed to them her sorrow for the troubles of Scotland, and made it her earnest suit, that they would consult their constitutional liberties, by dismissing the French and English from their country; and that they would preserve a dutiful obedience to the queen their sovereign. She professed an unlimited forgiveness of all the injuries which had been done to her; and entreated their pardon for the offences she had committed against them. In token of her kindness and charity, she then embraced them by turns; and, while the tear started in her eye, presented to them a cheerful and smiling aspect. After this interview, the short portion of life which remained to her was dedicated to religion; and that she might allure the Congregation to be compassionate to her Popish subjects and her French adherents, she flattered them, by calling John Willocks, one of the most popular of their preachers, to assist and comfort her by his exhortations and prayers. He made long discourses to her about

621 Death of the queen-regent, June 10th, An. 1560.

about the abominations of the mass: But she appears to have died in the communion of the Romish church; and her body being transported to France, was deposited in the monastery of St Peter, at Rheims, in Champagne, where her sister Renée was an abbess.

622 The French troops submit.

The death of the queen-dowager, at a period so critical, broke altogether the spirit of the French troops. They were blocked up so completely, that it was almost impossible for any supplies to reach them either by sea or land; and France had delayed so long to fulfil its magnificent promises, that it was no longer in a capacity to take any steps towards their accomplishment. Its internal distress and disquiets were multiplying. The nobility, impoverished by wars, were courting the rewards of service, and struggling in hostility. The clergy were avaricious, ignorant, and vindictive. The populace, knowing no trade but arms, offered their swords to the factious. Francis II. the husband of Mary, was without dignity or understanding. Catharine de Medicis his mother was full of artifice and falsehood. Insurrections were dreaded in every province. The house of Guise was encompassed with difficulties, and trembling with apprehensions, so that they could not think of persisting in their views of distant conquests. It was necessary that they should abandon for a time all the proud projects they had formed for the extension of the French monarchy. It was chiefly in the exemption from foreign wars that they could hope to support their own greatness, and apply a remedy to the domestic disturbances of France.

623 Francis and Mary enter into a negociation with Elizabeth.

It appeared to Francis and Mary, that they could not treat in a direct method with the Congregation, whom they affected to consider as rebellious subjects, without derogating from their royal dignity. In negociating a peace, therefore, they addressed themselves to Queen Elizabeth. It was by her offices and interference that they projected a reconciliation with the confederated lords, and that they sought to extinguish the animosities which, with so much violence, had agitated the Scottish nation. They granted their commission to John Monluc bishop of Valence, Nicholas Pelleve bishop of Amiens, Jacques de la Brosse, Henry Clentin sieur d'Oysel, and Charles de la Rochefaucault sieur de Randan; authorizing them in a body, or by two of their number, to enter into agreements with the queen of England. The English commissioners were Sir William Cecil principal secretary of state, Nicholas Wotton dean of Canterbury and York, Sir Ralph Sadler, Sir Henry Percy, and Sir Peter Crew; and the powers of treaty were to be exercised by them all in conjunction, or by four, three, or two of them.

624 Promise an indemnity to the Protestants.

The plenipotentiaries of France, though empowered only to treat with England, were yet, by a separate commission, entrusted to assure the Congregation, that, notwithstanding the heinous guilt incurred by them, Francis and Mary were inclined to receive them into favour, upon their repentance and return to obedience; and to abstain for ever from all inquiry into their conduct. They had full authority, at the same time, by this new deed, to hear, in conjunction with the commissioners of Elizabeth, the complaints of the Congregation, and to grant, with their consent, the relief which appeared to them to be the most proper and salutary.

The nobility and people of Scotland, choosing for their representatives the lord James Stuart, the lord Ruthven, and Maitland of Lethington, expressed their willingness to concur in reasonable measures for the reestablishment of the public tranquillity. By the mode of a formal petition, they enumerated their grievances, laid claim to redress, and besought an uniform protection to their constitution and laws. To this petition the intercession of Queen Elizabeth effected the friendly attention of Francis and Mary; and on a foundation concerted with so much propriety, Monluc and Randan, Cecil and Wotton, the acting plenipotentiaries of France and England, drew up and authenticated the celebrated deed of relief and concession which does so much honour to the spirit, perseverance and magnanimity of the Scottish nation.

625 And at last grant their petition.

626 Nature of their treaty with the Protestants.

By this agreement, Francis and Mary stipulated and consented, that no French soldiers and no foreign troops should ever be introduced into Scotland without the counsel and advice of the three estates. They concurred in opinion, that the French mercenaries should be sent back to France, and that the fortifications of Leith should be demolished. They agreed that commissioners should be appointed to visit Dunbar, and to point out the works there which ought to be destroyed; and they bound themselves to build no new fortress or place of strength within the kingdom, and to repair no old one, without a parliamentary sanction. They consented to extinguish all debts which had been contracted for the maintenance of the French and Scotch soldiery in their service. They appointed the estates of the realm to hold a parliament for the discussion of affairs of state; and they obliged themselves to consider the acts of this assembly as valid and effectual in every respect. They confirmed the ancient law of the country, which prohibited the princes of Scotland from making peace and war without the advice of the three estates. It was agreed by them, that the three estates, in concurrence with the queen, should elect a council for the administration of affairs during her majesty's absence. They became bound to employ the natives of Scotland in the management of justice both civil and criminal, in the offices of chancellor, keeper of the seals, treasurer, comptroller, and in other stations of a similar nature; and to abstain from the promotion of all foreigners to places of trust and honour, and from investing any clergyman in the charge of affairs of the revenue. They determined to establish an act of oblivion, and to forget for ever the memory of all the late transactions of war and offence. It was concluded by them, that a general peace and reconciliation should take place among all parties. They expressed their determination, that no pretence should be assumed by them, from the late contentions, to deprive any of their subjects of their estates or offices. And they referred the reparation which might be proper to compensate the injuries which had been sustained by bishops and ecclesiastics, to the judgment of the three estates in parliament.

On the subject of the reformation, the plenipotentiaries of England and France did not choose to deliberate and decide, though articles with regard to it had been presented to them by the nobles and the people. They referred this delicate topic to the ensuing meeting of parliament; and the leaders of the Congregation engaged, that deputies from the three estates should repair

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to the king and queen, to know their intention concerning matters of such high importance.

After having granted these concessions to the nobility and the people of Scotland, on the part of their respective courts, Monluc and Randan, Cecil and Wotton, concluded another treaty. By this convention it was determined, that the English and French troops should depart out of Scotland; that all warlike preparations should cease; that the fort of Eyemouth should be razed to the ground, in terms of the treaty of Cambray; that Francis and Mary should abstain from bearing the title and arms of England or Ireland; that it should be considered, whether a farther compensation should be made to Elizabeth for the injuries committed against her; and that the king and queen of Scots should be fully and sincerely reconciled to the nobility and the people of their kingdom. The interests of England and France were the particular objects of this agreement. But though the concessions to the Protestants were not inserted in it at full length, an expressive reference was made to them; and they received a confirmation in terms which could not be misunderstood. This deed recorded the clemency of Francis and Mary to their subjects of Scotland, the extreme willingness of the nobility and the people to return to their duty and allegiance, the representation they had offered of their grievances, and the request of Queen Elizabeth that redress should be afforded them; and it appealed to the consequent concessions which had been stipulated to their advantage.

627 Articles relating to the French troops.

By these important negociations, the Protestants, while they humbled France, flattered Queen Elizabeth; and while they acquired a power to act in the establishment of the reformation, restored to Scotland its civil constitution. The exclusion of foreigners from offices of state, the limitation of the Scottish princes with regard to peace and war, the advancement of the three estates to their ancient consequence, and the act of oblivion of all offences, were acquisitions most extensively great and useful; and, while they gave the fullest security to the reformed, gratified their most sanguine expectations.

628 Peace proclaimed.

The peace, so fortunately concluded, was immediately proclaimed. The French mercenaries embarked for their own country, and the English army took the road to Berwick. Amidst events so joyful, the preachers exhorted the confederated nobles to command the solemnity of a thanksgiving. It was ordered accordingly; and after its celebration, the commissioners of the boroughs, with several of the nobility, and the tenants *in capite*, were appointed to choose and depute ministers to preach the gospel in the principal towns throughout the kingdom. John Knox was called to discharge the pastoral functions at Edinburgh, Christopher Goodman at St Andrew's, Adam Heriot at Aberdeen, John Row at Perth, Paul Methven at Jedburgh, William Christison at Dundee, David Ferguson at Dunfermline, and David Lindsey at Leith. That the business of the church, at the same time, might be managed with propriety, superintendants were elected to preside over the ecclesiastical affairs of particular provinces and districts. Mr John Spotswood was named the superintendant for the division of Lothian, Mr John Willocks for that of Glasgow, Mr John Winram for that of Fife, Mr John Erskine of Dun for that of Angus and Mearns, and Mr John Carsewell for that of Argyle and the Isles. This inconsiderable number of ministers and superintendants gave a beginning to the reformed church of Scotland.

629 Appointment of preachers in different places.

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630 The parliament meets.

Amidst the triumph and exultation of the Protestants, the meeting of parliament approached. All persons who had a title from law, or from ancient custom, to attend the great council of the nation were called to assemble. While there was a full convention of the greater barons and the prelates, the inferior tenants *in capite*, or the lesser barons, on an occasion so great, instead of appearing by representation, came in crowds to give personally their assistance and votes; and all the commissioners for the boroughs, without exception, presented themselves.

It was objected to this parliament when it was assembled, that it could not be valid, since Francis and Mary were not present, and had not empowered any person to represent them. But by the terms of the late concessions to the nobility and the people, they had in effect dispensed with this formality; and the objection, after having been warmly agitated for some days, was rejected by a majority of voices. The lords of the articles were then chosen; and as the Protestant party were superior to the Popish faction, they were careful, in electing the members of this committee, to favour all those who were disposed to forward the work of the reformation. The first object which the lords of the articles held out to parliament was the supplication of the nobility, gentry, and all the other persons who professed the new doctrines. It required, that the Romish church should be condemned and abolished. It reprobated the tenet of transubstantiation, the merit of works, papistical indulgences, purgatory, pilgrimages, and prayers to departed saints; and considering them as pestilent errors, and as fatal to salvation, it demanded, that all those who should teach and maintain them should be exposed to correction and punishment. It demanded, that a remedy should be applied against the profanation of the holy sacraments by the catholics, and that the ancient discipline of the church should be restored. In fine, it insisted, that the supremacy and authority of the pope should be abolished; and that the patrimony of the church should be employed in supporting the reformed ministry, in the provision of schools, and in the maintenance of the poor.

631 Supplication of the Protestants.

This supplication of the Protestants was received in parliament with marks of the greatest deference and respect. The popish doctrines it censured, and the strong language it employed, excited no dispute or altercation. The nobility, however, and the lay members, did not think it expedient that the patrimony of the church, in all its extent, should be allotted to the reformed ministry, and the support of schools and the poor. Avoiding, therefore, any explicit scrutiny into this point, the parliament gave it in charge to the ministers and the leading men of the reformation, to draw up, under distinct heads, the substance and sense of those doctrines which ought to be established over the kingdom. Within four days this important business was accomplished. The writing or instrument to which the reformed committed their opinions was termed, "The Confession of Faith, professed and believed by the Protestants within the realm

632 A Confession of Faith drawn up.

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realm of Scotland." (Q) It was read first to the lords of the articles. It was then read to the parliament; and the prelates of the Romish church were commanded, in the name of God, to make publicly their objections to the doctrines it proposed. They preserved a profound silence. A new diet was appointed for concluding the transaction. The articles of the Confession were again read over in their order, and the votes of parliament were called. Of the temporal nobility, three only refused to bestow on it their authority. The earl of Athol, and the lords Somerville and Bothwell, protested, that "they would believe as their fathers had done before them." The bishops and the estate ecclesiastical, from a consciousness of the weakness of popery, seemed to have lost all power of speech. No dissent, no vote, was given by them. "It is long (said the earl Marischal), since I entertained a jealousy of the Romish faith, and an affection to the reformed doctrines. But this day has afforded me the completest conviction of the falsehood of the one, and the truth of the other. The bishops, who do not conceive themselves to be deficient in learning, and whose zeal for the maintenance of the hierarchy cannot be doubted, have abandoned their religion, and their interest in it, as objects which admit of no defence or justification." All the other constituent members of this great council were zealous for the establishment of the reformation, and affirmed the propriety of its doctrines. Thus the high court of parliament, with great deliberation and solemnity, examined, voted, and ratified the confession of the reformed faith.

633 Abolition of the mass.

A few days after the establishment of the Confession of Faith, the parliament passed an act against the mass and the exercise of the Romish worship. And it scrupled not to ordain, that all persons saying or hearing mass should, for the first offence, be exposed to the confiscation of their estates, and to a corporal chastisement, at the discretion of the magistrate: that for the second offence, they should be banished the kingdom; and that for the third offence they should suffer the pains of death.

634 Persecuting spirit of the Protestants.

This fierceness, it is to be acknowledged, did not suit the generosity of victory; and while an excuse is sought for it in the perfidiousness of the Romish priesthood, it escapes not the observation of the most superficial historians, that these severities were exactly those of which the Protestants had complained so loudly, and with so much justice. By another ordination, the parliament, after having declared that the pope, or bishop of Rome, had inflicted a deep wound and a humiliating injury upon the sovereignty and government of Scotland, by his frequent interferences and claims of power, commanded and decreed, that, for the future, his jurisdiction and authority should be extinct; and that all persons maintaining the smallest connexion with him, or with his sect, should be liable to the loss of honour and offices, proscription, and banishment.

635 Francis and Mary refuse to confirm the acts of this parliament.

These memorable and decisive statutes produced the overthrow of the Romish religion. To obtain for these proceedings, and to its other ordinances, the approbation of Francis and Mary, was an object of the greatest anxiety, and of infinite moment to the three estates. Sir James Sandilands lord St John was therefore appointed to go to France, and to express to the king and queen the affection and allegiance of their subjects, to explain what had been done in consequence of the late concessions and treaty, and to solicit their royal ratification of the transactions of parliament. The spirited behaviour of the Congregation had, however, exceeded all the expectations of the princes of Lorraine; and the business of the embassy, and the ambassador himself, though a man of character and probity, were treated not only with ridicule, but with insult and contumely. He returned accordingly without any answer to his commission. Instead of submitting the heads and topics of a reformation to Francis and Mary, by a petition or a narrative, the parliament had voted them into laws; and from this informality the validity of its proceedings has been suspected. But it is observable of the Protestants, that they had not concealed their views with regard to religion and the abolition of Popery; that in the grant of redress and concession, and in the deed of treaty, no actual prohibition was made to prevent the establishment of the reformation; that a general authority was given to parliament to decide in affairs of state; and that Francis and Mary were solemnly bound to authenticate its transactions. Though a formality was infringed, the spirit of the treaties was yet respected and maintained. The nation, of consequence, imputed the conduct of Francis and Mary to political reasons suggested by the princes of Lorraine, and to the artifices of the Popish clergy; and as Elizabeth did not refuse, on her part, the ratification of the agreements, and solicited and pressed the French court in vain to adopt the same measure, a strength and force were thence communicated to this conclusion.

When the three estates despatched Sir James Sandilands to France, they instructed the earls of Morton and Glencairn, with Maitland of Lethington, to repair to the court of England. By these ambassadors they presented to Elizabeth their sincere and respectful thanks, for the attention shown by her to Scotland, in her late most important services. And while they solicited the continuance of her favour and protection, intreated, in an earnest manner, that her majesty, for the establishment of a perpetual peace and amity, would be pleased to take in marriage the earl of Arran, the next heir after his father to the Scottish monarchy. The queen made new and fervent protestations of her regard and attachment; and gave the promise of her warmest aid when it would be necessary, in their just defence, upon any future occasion. She spoke in obliging terms of the earl of Arran; but as she found in herself no present disposition to marriage, she desired that he might consult his happiness in another alliance. She expressed a favourable opinion of the Scottish nobility; and as a demonstration of her affection and esteem, she took the liberty to remind them of the practices which had been employed to overturn their independency, and begged them to consider the unanimity and concord of their order as a necessary guard against the ambition and the artifice of the enemies of their nation.

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(Q) It is given at full length in Knox; in the collection of confessions of faith, vol. ii.; and in the statute book, parl. 1567.

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The success of the Congregation, though great and illustrious, was not yet completely decisive. The refusal of Francis and Mary to ratify their proceedings opened a source of bitterness and inquietude. The Popish party, though humbled, was not annihilated. Under the royal protection it would soon be formidable. Political considerations might arise, not only to cool the amity of England, but even to provoke its resentment. And France, though it could now transport no army against Scotland, might soon be able to adopt that expedient. Great distractions and severe calamities were still to be dreaded. In the narrowness of their own resources they could find no solid and permanent security against the rage and weight of domestic faction, and the strenuous exertions of an extensive kingdom. All their fair achievements might be blasted and overthrown. Popery might again build up her towers, and a sanguinary domination destroy alike their religious and civil liberties.

636 Death of Francis II. 4th Dec. An. 1560.

While the anguish of melancholy apprehensions repressed the triumph of the Congregation, the event which could operate most to their interests was announced to them. This was the death of Francis II. The tie which knit Scotland to France was thus broken. A new scene of politics displayed itself. Catharine de Medicis, the queen-mother, ruled Charles IX. and was the personal enemy of the queen of Scots. The power and the credit which Mary had lent to her uncles, and the frequent and humiliating disappointments which the queen-mother had suffered from her influence over Francis, were now repaid with a studied indifference and neglect. In the full perfection of her charms, with two crowns upon her head, and looking towards a third, she felt herself to be without grandeur and without consequence. Leaving a court where she had experienced all the enjoyments of which humanity is susceptible, she retired to Rheims, to indulge her sorrow.

In the humiliation of their queen, and in the change produced in the councils of France, the Protestants of Scotland found every possible encouragement to proceed with vigour towards the full establishment of the reformed doctrines. After the parliament had been dissolved, they turned their thoughts and attention to the plan of policy which might best suit the tenets and religion for which they had contended. The three estates, amidst their other transactions, had granted a commission to John Winram, John Spottiswood, John Willocks, John Douglas, John Row, and John Knox, to frame and model a scheme of ecclesiastical government. They were not long in complying with an order so agreeable to them, and composed what is termed the *First Book of Discipline;* in which they explained the uniformity and method which ought to be preserved concerning doctrine, the administration of the sacraments, the election and provision of ministers, and the policy of the church.

637 Ecclesiastical government of Scotland new-modelled. An. 1561.

A convention of the estates gave its sanction to the Presbyterian form of government. But while the Book of Discipline sketched out a policy beautiful for its simplicity, still it required that the patrimony and the rich possessions of the ancient church should be allotted to the new establishment. The reformers, however, so successful in the doctrines and the policy which they had proposed, were in this instance very unfortunate. This convention of the estates did not pay a more respectful regard to this proposal than had been done by the celebrated parliament, which demolished the mass and the jurisdiction of the see of Rome. They affected to consider it as no better than a dream. The expression "a devout imagination" was applied to it in mockery; and it was not till after long and painful struggles, that the new establishment was able to procure a becoming and necessary provision and support. The Romish clergy were strenuous to continue in their possessions, and to profit by them; and the nobles and the laity having seized on great proportions of the property of the church, were no less anxious to retain the acquisitions they had made.

638 The revenues of the ancient church refused to the reformed preachers.

The aversion entertained to the bestowing of riches on the Presbyterian establishment, encouraged the ardour which prevailed for advancing all the other views and interests of the reformed. And this end was also promoted in no inconsiderable degree by the insidious policy of Catharine de Medicis. She was willing to increase and to foster all the difficulties and dangers in the situation of the queen of Scots and her subjects. On this account she had engaged Charles IX. to despatch Monsieur Noailles to the Scotch parliament, to urge it, in strong terms, to renew the ancient league between the two kingdoms, to dissolve the alliance with England, and to re establish over Scotland the Popish doctrines and the popish clergy. A new meeting of the estates was assembled, which considered these strange requisitions, and treated them with the indignation they merited. Monsieur Noailles was instructed to inform his sovereign, that France having acted with cruelty and perfidiousness towards the Scots, by attacking their independence and liberties under pretence of amity and marriage, did not deserve to know them any longer as an ally; that principles of justice, a love of probity, and a high sense of gratitude, did not permit the Scottish parliament to break the confederacy with England, which had generously protected their country against the tyrannical views of the French court, and the treacherous machinations of the house of Guise; and that they were never to acknowledge the Popish clergy as a distinct order of men, or the legal possessors of the patrimony of the church; since, having abolished the power of the pope, and renouncing his doctrines, they could bestow no favour or countenance upon his vassals and servants.

To this council of the estates a new supplication was presented by the Protestants. They departed from the high claim which they had made for the riches and patrimony of the Popish church; and it was only requested by them, that a reasonable provision should be allotted to the true preachers of the gospel. This application, however, no less than their former exorbitant demand, was treated with neglect. But amidst the anxiety manifested by the nobles and the tenants of the crown to hold the Presbyterian clergy in subjection and in poverty, they discovered the warmest zeal for the extension and continuance of the reformed opinions. For in this supplication of the Protestants, an ardent desire being intimated and urged, that all the monuments of idolatry which remained should be utterly destroyed, the fullest and most unbounded approbation was given to it. An act was accordingly passed, which commanded that every abbey-church, every cloister, and every memorial whatever of Popery, should be finally

639 Final destruction of monasteries and every mark of the Popish religion in Scotland.

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finally demolished; and the care of this barbarous, but popular employment, was committed to those persons who were most remarkable for their keenness and ardour in the work of the reformation. Its execution in the western counties was given in charge to the earls of Arran, Argyle, and Glencairn; the lord James Stuart attended to it in the more northern districts; and in the inland divisions of the country, it was entrusted to the barons in whom the Congregation had the greatest confidence. A dreadful devastation ensued. The populace, armed with authority, spread their ravages over the kingdom. It was deemed an execrable lenity to spare any fabric or place where idolatry had been exercised. The churches and religious houses were everywhere defaced, or demolished; and their furniture, utensils, and decorations, became the prize of the invader. Even the sepulchres of the dead were ransacked and violated. The libraries of the ecclesiastics, and the registers kept by them of their own transactions and of civil affairs, were gathered into heaps, and committed to the flames. Religious antipathy, the sanction of law, the exhortation of the clergy, the hope of spoil, and, above all, the ardent desire of putting the last hand to the reformation, concurred to drive the rage of the people to its wildest fury; and, in the midst of havock and calamity, the new establishment surveyed its importance and its power.

640 Mary solicited to return to her own country.

The death of Francis II. having left his queen, Mary, in a very disagreeable situation while she remained in France, it now became necessary for her to think of returning to her own country. To this she was solicited both by the Protestants and Papists; the former, that they might gain her over to their party; and the latter, hoping that, as Mary was of their own persuasion, Popery might once more be established in Scotland. For this deputation, the Protestants chose Lord James Stuart, natural brother to the queen; and the Papists, John Lesly, official and vicar-general of the diocese of Aberdeen. The latter got the start of the Protestant ambassador, and thus had the opportunity of first delivering his message. He advised her strongly to beware of the lord James Stuart, whom he represented as a man of unbounded ambition, who had espoused the Protestant cause for no other reason than that he might advance himself to the highest employments in the state; nay, that he had already fixed his thoughts on the crown. For these reasons he advised that the lord James Stuart should be confined in France till the government of Scotland could be completely established. But if the queen were averse to this measure, he advised her to land in some of the northern districts of Scotland, where her friends were most numerous; in which case an army of 20,000 men would accompany her to Edinburgh, to restore the Popish religion, and to overawe her enemies. The next day the lord James Stuart waited on her, and gave an advice very different from that of Lesly. The surest method of preventing insurrections, he said, was the establishment of the Protestant religion; that a standing army and foreign troops would certainly lose the affections of her subjects; for which reason he advised her to visit Scotland without guards and without soldiers, and he became solemnly bound to secure their obedience to her. To this advice Mary, though she distrusted its author, listened with attention; and Lord James, imagining that she was prejudiced in his favour, took care to improve the favourable opportunity; by which means he obtained a promise of the earldom of Marr.

641 Her disputes with Elizabeth.

Before Mary set out from France, she received an embassy from Queen Elizabeth, pressing her to ratify the treaty of Edinburgh, in which she had taken care to have a clause inserted, that Francis and Mary should *for ever* abstain from assuming the title and arms of England and Ireland. But this was declined by the queen of Scotland, who, in her conference with the English ambassador, gave an eminent proof of her political abilities. * Her refusal greatly augmented the jealousies which already prevailed between her and Elizabeth, insomuch that the latter refused her a safe passage through her dominions into Scotland. This was considered by Mary as a high indignity; she returned a very spirited answer, informing her rival, that she could return to her own dominions without any assistance from her, or indeed whether she would or not. In the month of August 1561, Mary set sail from Calais for Scotland. She left France with much regret; and at night ordered her couch to be brought upon deck, desiring the pilot to awaken her in the morning, if the coast of France should be in view. The night proved calm, so that the queen had an opportunity of once more indulging herself with a sight of that beloved country. A favourable wind now sprang up, and a thick fog coming on, she escaped a squadron of men of war which Elizabeth had set out to intercept her; and on the 20th of the month she landed safely at Leith.

* See Robertson of Dalmeny's History of Mary Queen of Scotland.

642 Mary lands in Scotland.

But though the Scots received their queen with the greatest demonstrations of joy, it was not long before an irreconcileable quarrel began to take place. The Protestant religion was now established all over the kingdom; and its professors had so far deviated from their own principles, or what ought to have been their principles, that they would grant no toleration to the opposite party, not even to the sovereign herself. In consequence of this, when the queen attempted to celebrate mass in her own chapel of Holyroodhouse, a violent mob assembled, and it was with the utmost difficulty that the lord James Stuart and some other persons of high distinction could appease the tumult. Mary attempted to allay these ferments by a proclamation, in which she promised to take the advice of the states in religious matters; and, in the mean time, declared it to be death for any person to attempt an innovation or alteration of the religion which she found generally established upon her arrival in Scotland. Against this proclamation the earl of Arran protested, and formally told the herald, the queen's proclamation should not protect her attendants and servants if they presumed to commit idolatry and to say mass. John Knox declared from the pulpit, that one mass was more terrible to him than if 10,000 armed enemies had landed in any part of the kingdom to re-establish Popery. The preachers everywhere declaimed against idolatry and the mass; keeping up, by their mistaken zeal, a spirit of discontent and sedition throughout the whole kingdom. John Knox was called before the queen to answer for the freedom of his speeches; but his unbounded boldness, when there, gave Mary much disquiet, as not knowing in what manner to treat him.

643 Is insulted by the Protestants.

The

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The freedoms, however, which were taken with the queen, could not induce her to depart from that plan of government which she had laid down in France. To the Protestants she resolved to pay the greatest attention; from among them she chose her privy-council, and heaped favours upon the lord James Stuart, who for his activity in promoting the reformation was the most popular man in the kingdom; while to her courtiers of the Catholic persuasion she behaved with a distant formality.

In the mean time, the differences between the two rival queens became every day greater. The queen of Scotland pressed Elizabeth to declare her the nearest heir to the crown of England, and Elizabeth urged Mary to confirm the treaty of Edinburgh. With this the latter could not comply, as it would in fact have been renouncing for ever the title to that crown for which she was so earnestly contending. Endless negociations were the consequence, and the hatred of Elizabeth to Mary continually increased. This year the queen of Scotland amused herself by making a circuit through part of her dominions. From Edinburgh she proceeded to Stirling; thence to Perth, Dundee, and St Andrew's. Though received everywhere with the greatest acclamations and marks of affection, she could not but remark the rooted aversion which had universally taken place against Popery; and upon her return to Edinburgh, her attention was called to an exertion of this zeal, which may be considered as highly characteristic of the times. The magistrates of this city, after their election, enacted rules, according to custom, for the government of their borough. By one of these acts, which they published by proclamation, they commanded all monks, friars, and priests, together with all adulterers and fornicators, to depart from the town and its limits within 24 hours, under the pains of correction and punishment. Mary, justly interpreting this exertion of power to be an usurpation of the royal authority, and a violation of order, displaced the magistrates, commanded the citizens to elect others in their room, and granted by proclamation a plenary indulgence to all her subjects not convicted of any crime, to repair to and remain in her capital at their pleasure.

644 Bigotry of the magistrates of Edinburgh.

Besides these disturbances on account of religion, the kingdom was now in confusion from another cause. The long continuance of civil wars had everywhere left a proneness to tumults and insurrections; and thefts, rapine, and licentiousness of every kind, threatened to subvert the foundations of civil society. Mary made considerable preparations for the suppression of these disorders, and appointed the lord James Stuart her chief justiciary and lieutenant. He was to hold two criminal courts, the one at Jedburgh, and the other at Dumfries. To assist his operations against the banditti, who were armed, and often associated into bodies, a military force was necessary; but as there were at present neither standing army nor regular troops in the kingdom, the county of Edinburgh, and ten others, were commanded to have their strength in readiness to assist him. The feudal tenants, and the allodial or free proprietors of these districts, in complete armour, and with provisions for 20 days, were appointed to be subservient to the purposes of his commission, and to obey his orders in establishing the public tranquillity. In this expedition he was attended with his usual success. He destroyed many of the strong holds of the banditti; hanged 20 of the most notorious offenders; and ordered 50 more to be carried to Edinburgh, there to suffer the penalties of law on account of their rebellious behaviour. He entered into terms with the lord Grey and Sir John Foster, the wardens of the English borders, for the mutual benefit of the two nations; and he commanded the chiefs of the disorderly clans to submit to the queen, and to obey her orders with regard to the securing of the peace, and preventing insurrections and depredations in future.

645 Disordered state of the nation.

646 Suppressed by Lord James Stuart.

647 Mary distrusted by both parties.

In the mean time the queen was in a very disagreeable situation, being suspected and mistrusted by both parties. From the concessions which she had made to the Protestants, the Papists supposed that she had a design of renouncing their religion altogether; while on the other hand, the Protestants could scarcely allow themselves to believe that they owed any allegiance to an idolater. Disquiets of another kind also now took place. The Duke of Chatelherault, having left the Catholics to join the opposite party, was neglected by his sovereign. Being afraid of some danger to himself, he fortified the castle of Dumbarton, which he resolved to defend; and, in case of necessity, to put himself under the protection of the queen of England.—The earl of Arran was a man of very slender abilities, but of boundless ambition. The queen's beauty had made an impression on his heart, and his ambition made him fancy himself the fittest person in the kingdom for her husband. But his fanaticism, and the violence with which he had opposed the mass, had disgusted her. He bore her dislike with an uneasiness that preyed upon his intellects and disordered them. It was even supposed that he had concerted a scheme to possess himself of her person by armed retainers; and the lords of her court were commanded to be in readiness to defeat any project of this nature. The earl of Bothwell was distinguished chiefly by his prodigalities and the licentiousness of his manners. The earl Marischal had every thing that was honourable in his intentions, but was wary and slow. The earl of Morton possessed penetration and ability, but was attached to no party or measures from any principles of rectitude: His own advantage and interests were the motives by which he was governed. The earl of Huntly the lord chancellor, was unquiet, variable, and vindictive: His passions, now fermenting with violence, were soon to break forth in the most dangerous practices. The earls of Glencairn and Menteith were deeply tinctured with fanaticism; and their inordinate zeal for the new opinions, not less than their poverty, recommended them to Queen Elizabeth. Her ambassador Randolph, advised her to secure their services, by addressing herself to their necessities. Among courtiers of this description, it was difficult for Mary to make a selection of ministers in whom she might confide. The consequence and popularity of the lord James Stuart, and of Maitland of Lethington, had early pointed them out to this distinction; and hitherto they had acted to her satisfaction. They were each of eminent capacity: but the former was suspected of aiming at the sovereignty; the latter was prone to refinement and duplicity; and both were more attached to Elizabeth than became them as the ministers and subjects of another sovereign.

648 Characters of her different courtiers.

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649 She obtains a part of the ecclesiastical revenues.

Beside the policy of employing and trusting statesmen who were Protestants, and the precaution of maintaining a firm peace with England, Mary had it also at heart to enrich the crown with the revenues of the ancient church. A convention of estates was assembled to deliberate on this measure. The bishops were alarmed at their perilous situation. It was made known to them, that the charge of the queen's household required an augmentation; and that as the rents of the church had flowed chiefly from the crown, it was expedient that a proper proportion of them should now be resumed to upheld its splendour. After long consultations, the prelates and ecclesiastical estate considering that they existed merely by the favour of the queen, consented to resign to her the third part of their benefices, to be managed at her pleasure; with the reservation that they would be secured during their lives against all farther payments, and relieved from the burden of contributing to the maintenance of the reformed clergy. With this offer the queen and the convention of estates were satisfied. Rentals, accordingly, of all their benefices throughout the kingdom were ordered to be produced by the ancient ecclesiastics; the reformed ministers, superintendants, elders, and deacons, were enjoined to make out registers of the grants or provisions necessary to support their establishment; and a supereminent power of judging in these matters was committed to the queen and the privy-council.

While the prelates and ecclesiastical estate submitted to this offer from the necessity of their affairs, it was by no means acceptable to the reformed clergy, who at this time were holding an assembly. It was their earnest wish to effect the entire destruction of the ancient establishment, to succeed to a large proportion of their emoluments, and to be altogether independent of the crown. But while the Protestant preachers were naturally and unanimously of these sentiments, the nobles and gentlemen who had promoted the reformation were disposed to think very differently. To give too much of the wealth of the church to the reformed clergy, was to invest them with a dangerous power. To give too great a proportion of it to the crown, was a step still more dangerous. At the same time it was equitable, that the ancient clergy should be maintained during their lives; and it accorded with the private interests of the noblemen and gentlemen, who had figured during the reformation, not to consent to any scheme that would deprive them of the spoils of which they had already possessed themselves out of the ruins of the church, or which they might still be enabled to acquire.

650 Bad success of the demands of the Protestants.

Thus, public as well as private considerations contributed to separate and divide the lay Protestants and the preachers. The general assembly, therefore, of the church, was not by any means successful in the views which had called them together at this time, and which they submitted to the convention of estates. Doubts were entertained whether the church had any title to assemble itself. The petition preferred for the complete abolition of idolatry, or for the utter prohibition of the mass, was rejected, notwithstanding all the zeal manifested by the brethren. The request that Mary should give authority to the book of discipline, was not only refused, but even treated with ridicule. The only point pressed by the church which attracted any notice, was its requisition of a provision or a maintenance; but the measure proposed for this end was in opposition to all its warmest desires.

This measure, however, so unpromising to the preachers in expectation, was found to be still more unsatisfactory on trial. The wealth of the Romish church had been immense, but great invasions had been made on it. The fears of the ecclesiastics, on the overthrow of popery, induced them to engage in fraudulent transactions with their kinsmen and relations; in consequence of which, many possessions were conveyed from the church to private hands. For valuable considerations, leases of church-lands, to endure for many years, or in perpetuity, were granted to strangers and adventurers. Sales also of ecclesiastical property, to a great extent, had been made by the ancient incumbents; and a validity was supposed to be given to these transactions by confirmations from the pope, who was zealous to assist his votaries. Even the crown itself had contributed to make improper dispositions of the ecclesiastical revenues. Laymen had been presented to bishoprics and church-livings, with the power of disposing of the territory in connexion with them. In this diffusion of the property of the church, many great acquisitions, and much extensive domain, came to be invested in the nobles and the gentry.

From these causes the grant of the third of their benefices, made by the ancient ecclesiastics to the queen, with the burden of maintaining the reformed clergy, was not nearly so considerable as might have been expected. But the direction of the scheme being lodged in the queen and the privy council, the advantage to the crown was still greater than that bestowed upon the preachers. Yet the carrying the project into execution was not without its inconveniences. There were still many opportunities for artifice and corruption: and the full third of the ecclesiastical benefices, even after all the previous abstractions of them which had been made, could not be levied by any diligence; for the ecclesiastics often produced false rentals of their benefices; and the collectors for the crown were not always faithful to the trust reposed in them. The complete produce of the thirds did not amount to a great sum; and it was to contribute towards the expenses of the queen, as well as to the support of the preachers. A scanty proportion went to the latter; and yet the persons who were chosen to fix their particular stipends were the firm friends of the reformation. For this business was committed in charge to the earls of Argyle and Morton, the lord James Stuart, and Maitland of Lethington, with James Mackgill the clerk-register, and Sir John Ballenden the justice-clerk. One hundred Scottish merks were deemed sufficient for a common minister. To the clergymen of greater interest or consideration, or who exercised their functions in more extensive parishes, 500 merks were allotted; and, excepting to superintendants, this sum was seldom exceeded. To the earl of Argyle, to the lord James Stuart, to lord Erskine, who had large ecclesiastical revenues, their thirds were usually remitted by the queen: and on the establishment of this fund or revenue, she also granted many pensions to persons about her court and of her household.

651 Provision made for the Protestant preachers.

The complaints of the preachers were made with little decency, and did not contribute to improve their condition. The coldness of the Protestant laity, and the humanity

652 The whole party disappointed.

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manity shown to the ancient clergy, were deep wounds both to their pride and to their interests. To a mean spirit of flattery to the reigning power, they imputed the defection of their friends; and against the queen they were animated with the bitterest animosity. The poverty in which they were suffered to remain inflamed all their passions. They industriously sought to indulge their rancour and turbulence; and inveterate habits of insult fortified them with a contempt of authority.

To the queen, whose temper was warm, the rudeness of the preachers was a painful and endless inquietude, which, while it fostered her religious prejudices, had the good effect of confirming her constancy to her friends, and of keeping alive her gratitude for their activity. The lord James Stuart, who was entitled to her respect and esteem from his abilities, and his proximity to her in blood, had merited rewards and honours by his public services and the vigour of his counsels. After his successful discharge of her commission as chief justiciary and lord lieutenant, she could not think of allowing him to descend from these offices, without bestowing on him a solid and permanent mark of her favour. She advanced him to the rank of her nobility, by conferring on him the earldom of Mar. At the same time she contributed to augment his consequence, by facilitating his marriage with Agnes the daughter of the earl Marischal; and the ceremonial of this alliance was celebrated with a magnificence and ostentation so extravagant in that age, as to excite the fears of the preachers lest some avenging judgment or calamity should afflict the land. They exclaimed with virulence against his riotous feasting and banquets; and the masquerades which were exhibited on this occasion, attracting in a still greater degree their attention, as being a species of entertainment hitherto unknown in Scotland, and which was favourable to the profaneness of gallantry, they pointed against them the keenest strokes of their censure and indignation.

653 Honours conferred on lord James Stuart.

The abilities of the earl of Mar, the ascendency he maintained in the councils of his sovereign, and the distinctions which he had acquired, did not fail to expose him to uncommon envy. The most desperate of his enemies, and the most formidable, was the earl of Huntly. In their rivalship for power, many causes of disgust had arisen. The one was at the head of the Protestants, the other was the leader of the Papists. On the death of Francis II. Huntly and the Popish faction had sent a deputation to Mary, inviting her to return to Scotland, and offering to support her with an army of 20,000 men. His advances were treated with attention and civility; but his offer was rejected. The invitation of the Protestants, presented by the earl of Mar, was more acceptable to her. Huntly had advised her to detain his rival in confinement in France till the Catholic religion should be reestablished in Scotland. This advice she not only disregarded, but caressed his enemy with particular civilities. On her arrival in her own country, Huntly renewed his advances, offering to her to set up the mass in all the northern counties. He even conversed in a pressing manner upon this subject with her uncles and the French courtiers who attended her. Still no real attention was paid to him. He came to her palace, and was received only with respect. He was lord high chancellor without influence, and a privy councillor without trust. The earl of Mar had the confidence of his sovereign, and was drawing to him the authority of government. These were cruel mortifications to a man of high rank, inordinate ambition, immense wealth, and who commanded numerous and warlike retainers. But he was yet to feel a stroke still more severely excruciating, and far more destructive of his consequence. The opulent estate of Mar, which Mary had erected into an earldom, and conferred on his rival, had been lodged in his family for some time. He considered it as his property, and that it was never to be torn from his house. This blow was at once to insult most sensibly his pride, and to cut most fatally the sinews of his greatness.

654 Enmity of the earl of Huntly towards him. An. 1562.

655 Huntly presses the queen to restore the Popish religion.

656 He accuses the lord James Stuart of treason.

After employing against the earl of Mar those arts of detraction and calumny which are so common in courts, he drew up and subscribed a formal memorial, in which he accused him of aiming at the sovereignty of Scotland. This paper he presented to the queen; but the arguments with which he supported his charge being weak and inconclusive, she was the more confirmed in her attachment to her minister. Huntly then addressing himself to the earl of Bothwel, a man disposed to desperate courses, engaged him to attempt involving the earl of Mar and the house of Hamilton in open and violent contention. Bothwel represented to Mar the enmity which had long subsisted between him and the house of Hamilton. It was an obstacle to his greatness; and while its destruction might raise him to the highest pinnacle of power, it would be most acceptable to the queen, who, beside the hatred which princes naturally entertain to their successors, was animated by particular causes of offence against the duke of Chatelherault and the earl of Arran. He concluded his exhortation with making an unlimited offer of his most strenuous services in the execution of this flagitious enterprise. The earl of Mar, however, abhorring the baseness of the project, suspicious of the sincerity of the proposer, or satisfied that his eminence did not require the aid of such arts, rejected all his advances. Bothwel, disappointed on one side, turned himself to the other. He practised with the house of Hamilton to assassinate the earl of Mar, whom they considered as their greatest enemy. The business, he said, might be performed with ease and expedition. The queen was accustomed to hunt in the park of Falkland; and there the earl of Mar, not suspecting any danger, and ill attended, might be overpowered and put to death. The person of the queen, at the same time, might be seized; and by keeping her in custody, a sanction and security might be given to their crime. The integrity of the earl of Arran revolting against this conspiracy, defeated its purposes. Dreading the perpetration of so cruel an action, and yet sensible of the resolute determination of his friends, he wrote privately to the earl of Mar, informing him of his danger. But the return of Mar to his letter, thanking him for his intelligence, being intercepted by the conspirators, Arran was confined by them under a guard in Kenneil-house. He effected his escape, however, and made a full discovery of the plot to the queen. Yet as in a matter so dark he could produce no witnesses and no written vouchers to confirm his accusations, he, according to the fashion of the times, offered to prove his information, by engaging Bothwel in single combat. And though, in his examinations before the privy-council, his

657 And attempts to assassinate him.

658 But fails in his attempt.

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his love to the queen, his attachment to the earl of Mar, the atrocity of the scheme he revealed, and, above all, his duty and concern for his father the duke of Chatelherault, threw him into a perturbation of mind which expressed itself violently in his speech, his countenance, and his actions; yet his declarations, in geral, were so consistent and firm, that it was thought advisable to take the command of the castle of Dumbarton from the duke of Chatelherault, to confine the other conspirators to different prisons, and to wait the farther discoveries which might be made by time and accident.

The earl of Huntly, inflamed by these disappointments, invented other devices. He excited a tumult while the queen and the earl of Mar were at St Andrew's with only a few attendants; imagining that the latter would sally forth to quell the insurgents, and that a convenient opportunity would thus be afforded for putting him to the sword without detection. The caution, however, of the earl of Mar, defeating this purpose, he ordered some of his retainers to attack him in the evening when he should leave the queen; but these assassins being surprised in their station, Huntly affected to excuse their being in arms in a suspicious place and at a late hour, by frivolous apologies, which, though admitted, could not be approved.

About this period, too, letters were received by Mary from the pope and the cardinal of Lorraine, in consequence of the intrigues of the earl of Huntly and the Catholic faction. They pressed her to consider, that while this nobleman was the most powerful of her subjects, he was by far the most zealous in the interests of the church of Rome. They intreated her to flatter him with the hope of her marriage with Sir John Gordon his second son; held out to her magnificent promises of money and military supplies, if she would set herself seriously to recover to power and splendour the ancient religion of her country; and recommended it to her to take measures to destroy the more strenuous Protestants about her court, of whom a roll was transmitted to her, which included the name of her confidant and minister the earl of Mar. These letters could not have reached her at a juncture more unfavourable to their success. The earl of Mar, to whom she communicated them, was encouraged to proceed with the greatest vigour in undermining the designs and the importance of his enemies.

659 Sir John Gordon wounds Lord Ogilvy, and is apprehended;

New incidents exasperated the animosities of the enemies of the earl of Mar and his own. Sir John Gordon and the lord Ogilvie having a private dispute, happened to meet each other in the high street of Edinburgh. They immediately drew their swords; and the lord Ogilvie receiving a very dangerous wound, Sir John Gordon was committed to prison by the magistrates. The queen, at this time in Stirling, was informed by them of the riot; and while they expressed a fear lest the friends of the prisoner should rise up in arms to give him his liberty, they mentioned a suspicion which prevailed, that the partisans of the lord Ogilvie were to assemble themselves to vindicate his quarrel. The queen, in her reply, after commending their diligence, instructed them to continue to have a watch over their prisoner; made known her desire that the law should take its course; and counselled them to have no apprehensions of the kindred of the parties at variance, but to rely on the earl of Mar for providing a sufficient force for their protection. Sir John Gordon, however, found means to break from his confinement; and flying into Aberdeenshire, filled the retainers of his family with his complaints, and added to the disquiets of his father the earl of Huntly.

660 but escapes from prison,

The queen, on returning to Edinburgh, held a consultation on affairs of state with her privy council; and soon after set out in a progress to the northern parts of her kingdom. At Aberdeen she was met by the lady Huntly, a woman of deep dissimulation and of refined address; who endeavoured to conciliate her affections, was prodigal of flattery, expressed her zeal for the Popish religion, and let fall insinuations of the great power of her husband. She then interceded with the queen for forgiveness to her son: and begged with a keen importunity, that he might be permitted to have the honour to kiss her hand. But Mary having told her, that the favour she had solicited could not be granted till her son should return to the prison from which he had escaped, and submit to the justice of his country, the lady Huntly engaged that he should enter again into custody, and only intreated, that, instead of being confined at Edinburgh, he should be conducted to the castle of Stirling. This request was complied with; and in the prosecution of the business, a court of justiciary being called, Sir John Gordon made his appearance, and acknowledged himself to be the queen's prisoner. The lord Glammis was appointed to conduct him to the castle of Stirling. But on the road to this fortress, he eluded the vigilance of his guards, hastened back, and gathering 1000 horsemen among his retainers, entrusted his security to the sword.

661 and attempts to raise a rebellion.

In the mean time, the queen continued her progress. The earl of Huntly joined himself to her train. His anxiety to induce her to allow him to attend her to his house of Strathbogie was uncommon; his intreaties were even pressed beyond the bounds of propriety. The intelligence arrived of the escape and rebellion of Sir John Gordon. The behaviour of the father and the son awakened in her the most alarming suspicions. Assembling her privy-council, who, according to the fashion of those times, constituted her court, and attended her person in her progresses through her dominions; she, with their advice, commanded her heralds to charge Sir John Gordon and his adherents to return to their allegiance, and to surrender to her their houses of strength and castles, under the penalties of high treason and forfeiture. Disdaining now to go to the house of the earl of Huntly, where, as it afterwards appeared, that nobleman had made secret preparations to hold her in captivity, she advanced to Inverness by a different route. In the castle of Inverness she proposed to take up her residence: but Alexander Gordon the deputy governor, a dependent of the family of Huntly, refused to admit her. She was terrified with the prospect of certain and imminent danger. Her attendants were few in number, the town was without walls, and the inhabitants were suspected. In this extremity, some ships in the river were kept in readiness as a last refuge; and she issued a proclamation, commanding all her loyal subjects in those parts immediately to repair to her for her protection. The Frasers and Monroes came in crowds to make her the offer of their swords. The Clan Chattan, though called to arms by the earl of Huntly, forsook

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sook his standard for that of their sovereign, when they discovered that his intentions were hostile to her. She employed this strength in laying siege to the castle, which surrendered itself on the first assault. The lives of the common soldiers were spared, but the deputy-governor was instantly executed. The queen, full of apprehensions, returned to Aberdeen.

To intimidate the earl of Huntly, to revenge the troubles which his family had created to the queen, and to convince him that his utter ruin was at hand, a measure infinitely humiliating was now concerted and put in practice. The earl of Mar resigned the rich estate of that name to the lord Erskine, who laid claim to it as his right; and received in recompense, after its erection into an earldom, the territory of Murray, which made an extensive portion of the possessions of the Earl of Huntly.

The lady Huntly hastened to Aberdeen to throw herself at the feet of her sovereign, to make offer of the most humble submissions on the part of her husband, and to avert by every possible means the downfal of his greatness. But all access to the queen was refused her; and the earl of Huntly was summoned to appear in person before the privy council, to answer for his conduct, and to make a full resignation of all his castles and fortresses. He did not present himself, and was declared to be in open rebellion. A new proclamation was circulated by the queen to collect a sufficient strength to subdue the insurgents. The command of her troops was given to the earl of Murray, who put them instantly in motion. Huntly advancing towards Aberdeen to give them battle, was informed of their approach. He halted at Corrichie, solacing himself with the hope of a decisive victory. The army of the queen was the more numerous; but there were several companies in it in whom little confidence could be placed. These the earl of Murray posted in front of the battle, and commanded them to begin the attack. They recoiled on him in disorder, according to his expectation; but a resolute band in whom he trusted, holding out their spears, obliged them to take a different course. Their confusion and flight made Huntly conceive that the day was his own. He therefore ordered his soldiers to throw aside their lances, and to rush on the enemy sword in hand. His command was obeyed, but with no precaution or discipline. When his men came to the place where the earl of Murray had stationed himself, the points of the extended spears of his firm battalion put a termination to their progress. The panic communicated by this unexpected resistance was improved by the vigour with which he pressed the assailants. In their turn they took to flight. The companies of the queen's army which had given way in the beginning of the conflict, were now disposed to atone for their misconduct; and taking a share in the battle, committed a signal slaughter upon the retainers of the earl of Huntly. This nobleman himself expired in the throng of the pursuit. His sons Sir John Gordon and Adam Gordon were made prisoners, with the principal gentlemen who had assisted him.

662 Earl of Huntly defeated by the earl of Murray.

Mary, on receiving the tidings of this success, discovered neither joy nor sorrow. The passions, however, of the earl of Murray and his party were not yet completely gratified. Sir John Gordon was brought immediately to trial, confessed his guilt, and was condemned to suffer as a traitor. The sentence was accordingly executed, amidst a multitude of spectators, whose feelings were deeply affected, while they considered his immature death, the manliness of his spirit, and the vigour of his form. Adam Gordon, upon account of his tender age, was pardoned; and fines were levied from the other captives of rank according to their wealth. The lord Gordon, after the battle of Corrichie, fled to his father-in-law the duke of Chatelherault, and put himself under his protection; but was delivered up by that nobleman, all whose endeavours in his favour were ineffectual. He was convicted of treason, and condemned; but the queen was satisfied with confining him in prison. The dead body of the earl of Huntly was carried to Edinburgh, and kept without burial, till a charge of high treason was preferred against him before the three estates. An ostentatious display was made of his criminal enterprises, and a verdict of parliament pronounced his guilt. His estates, hereditary and moveable, were forfeited; his dignity, name, and memory, were pronounced to be extinct; his armorial ensigns were torn from the book of arms; and his posterity were rendered unable to enjoy any offices, honour, or rank within the realm.

663 An interview proposed between Mary and Elizabeth, but in vain.

While these scenes were transacting, Mary, who was sincerely solicitous to establish a secure amity between the two kingdoms, opened a negociation to effect an interview with Elizabeth. Secretary Maitland, whom she employed in this business, met with a most gracious reception at the court of London. The city of York was appointed as the place where the two queens should express their mutual love and affection, and bind themselves to each other in an indissoluble union; the day of their meeting was fixed; the fashion and articles of their interview were adjusted; and a safe-conduct into England was granted to the queen of Scots by Elizabeth. But in this advanced state of the treaty it was unexpectedly interrupted. The disturbances in France, the persecution of the Protestants there, and the dangerous consequence which threatened the reformed countries, seemed to require Elizabeth to be particularly on her guard, and to watch with eagerness the machinations of the adversaries of her religion. On these pretences she declined for a time the projected interview; sending to Mary with this apology Sir Henry Sidney, a minister of ability, whom she instructed to dive into the secret views of the Scottish queen. This was a severe disappointment to Mary; but it is reasonable to believe, that Elizabeth acted in the negociation without sincerity, and on principles of policy. It was not her interest to admit into her kingdom a queen who had pretensions to her crown, and who might there strengthen them; who might raise the expectations of her Catholic subjects, and advance herself in their esteem; and who far surpassed her in beauty, and in the bewitching allurements of conversation and behaviour.

664 Chatelard falls in love with the queen.

Amidst affairs of great moment, a matter of smaller consequence, but which is interesting in its circumstances, deserves to be recorded. Chatelard, a gentleman of family in Dauphiny, and a relation of the chevalier de Bayard, had been introduced to Queen Mary by the sieur Damville, the heir of the house of Montmorency. Polished manners, vivacity, attention to please, the talent of making verses, and an agreeable figure, were recommendations of this man. In the court they drew

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drew attention to him. He made himself necessary in all parties of pleasure at the palace. His assiduities drew on him the notice of the queen; and, at different times, she did him the honour of dancing with him. His complaisance became gradually more familiar. He entertained her with his wit and good humour; he made verses on her beauty and accomplishments; and her politeness and condescension instilled into him other sentiments than those of gratitude and reverence. He could not behold her charms without feeling their power: and instead of stifling in its birth the most dangerous of all the passions, he encouraged its growth. In an unhappy moment, he entered her apartment; and, concealing himself under her bed, waited the approach of night. While the queen was undressing, her maids discovered his situation, and gave her the alarm. Chatelard was dismissed with disgrace, but soon after received her pardon. The frenzy, however, of his love compelling him to repeat his crime, it was no longer proper to show any compassion to him. The delicate situation of Mary, the noise of these adventures, which had gone abroad, and the rude suspicions of her subjects, required that he should be tried for his offences and punished. This imprudent man was accordingly condemned to lose his head; and the sentence was put in execution.

665 Is put to death.

666 Mary inclines to a second marriage, and is addressed by a number of suitors. An. 1565.

The disagreeable circumstances in which Mary found herself involved from her quarrel with Elizabeth, the excessive bigotry and overbearing spirit of her Protestant subjects, together with the adventure of Chatelard, and the calumnies propagated in consequence of it, determined her to think of a second marriage. Her beauty and expectations of the crown of England, joined to the kingdom which she already possessed, brought her many suitors. She was addressed by the king of Sweden, the king of Navarre, the prince of Condé, the duke of Ferrara, Don Carlos of Spain, the archduke Charles of Austria, and the duke of Anjou. Her own inclination was to give the preference, among these illustrious lovers, to the prince of Spain; but her determination, from the first moment, was to make her wishes bend to other considerations, and to render her decision on this important point as agreeable as possible to Queen Elizabeth, to the English nation, and to the Protestants in both kingdoms. Her succession to the crown of England was the object nearest her heart; and Elizabeth, who wished to prevent her from marrying altogether, contrived to impress on her mind an opinion that any foreign alliance would greatly obstruct that much desired event. She therefore pitched on two of her own subjects, whom she successively recommended as fit matches for the queen of Scots; and she promised, that on her acceptance of either, her right of inheritance should be inquired into and declared. Lord Robert Dudley, afterwards earl of Leicester, was the first person proposed; and except a manly face and fine figure he had not one quality that could recommend him to the Scottish princess. Whilst Mary received this suitor with some degree of composure, she did not altogether repress her scorn. "She had heard good accounts (she owned) of the gentleman; but as Queen Elizabeth had said, that in proposing a husband to her, she would consult her honour, she asked what honour there could be in marrying a subject?" The English queen then proposed to Mary another suitor, lest her thoughts should return to a foreign alliance. This was Lord Darnley, of the house of Stuart itself, whose birth was almost equal to her own, and whom the Scottish princess was induced to accept as a husband by motives which we have detailed elsewhere. (See MARY.) Elizabeth, however, was not more sincere in this proposal than in the former; for after permitting Darnley and his father the earl of Lenox to visit Scotland merely with the view of diverting the attention of the queen from the continent, she threw, in the way of the marriage, every obstacle which art and violence could contrive. When she found Mary so much entangled, that she could scarcely retract or make any other choice than that of Darnley, Elizabeth attempted to prevent her from going farther; and now intimated her disapprobation of that marriage, which she herself had not only originally planned, but, in these latter stages, had forwarded by every means in her power. The whole council of Elizabeth declared against the marriage. Even from her own subjects Mary met with considerable opposition. An inveterate enmity had taken place between the duke of Chatelherault and the earl of Lenox, in consequence of which the former deserted the court, and very few of the Hamiltons repaired to it. The lord James Stuart, now earl of Murray, sought to promote the match with Lord Dudley. In consequence of this he was treated openly with disrespect by the earl of Lenox; he lost the favour of his sovereign, and Darnley threatened him with his vengeance when he should be married to the queen. John Knox in the mean time behaved in the most furious manner, forgetting not only the meek and peaceable behaviour of a Christian, but the allegiance of a subject. This preacher even interfered with the marriage of his sovereign. He warned the nobility, that if they allowed a Papist or an infidel to obtain her person and the government of Scotland, they would be guilty, to the full extent of their power, of banishing Jesus Christ from the kingdom, of bringing down on it the vengeance of God, of being a curse to themselves, and of depriving their queen of all comfort and consolation. As Darnley was a Papist, he was of consequence execrated by the whole body of Protestants, laity as well as clergy; while, on the other hand, he was supported by the Earls of Athol and Caithness, the lords Ruthven and Hume, and the whole Popish faction.

667 She makes choice of Lord Darnley.

668 Extravagant behaviour of John Knox.

It was exceedingly unfortunate for the queen, that neither Lord Darnley himself, nor his father the earl of Lenox, had any talents for business; and as they naturally had the direction of the queen's affairs, it is no wonder that these were very ill managed. But a source of opposition, more violent than any imperfections of their own, rose against them in the attachment which they discovered to a person on whom the queen had of late bestowed her favour with an imprudent prodigality. David Rizzio from a mean origin had raised himself to distinguished eminence. He was born at Turin, where his father earned a subsistence as a musician. Varieties of situation and adventure, poverty, and misfortunes, had taught him experience. In the train of the count de Morette, the ambassador from the duke of Savoy, he had arrived in Scotland. The queen, desirous of completing her band of music, admitted him into her service. In this humble station he had the dexterity to attract her attention; and her French secretary falling into disgrace from negligence and incapacity, he was promoted

667 Account of David Rizzio.

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to discharge the duties of that office. A necessary and frequent admission to her company afforded him now the fullest opportunity of recommending himself to her; and while she approved his manners, she was sensible of his fidelity and his talents. His mind, however, was not sufficiently vigorous to bear such prosperity. Ambition grew on him with preferment. He interfered in affairs of moment, intruded himself into the conventions of the nobles at the palace, and was a candidate for greatness. The queen consulted him on the most difficult and important business, and intrusted him with real power. The suppleness, servility, and unbounded complaisance which had characterised his former condition, were exchanged for insolence, pride, and ostentation. He exceeded the most potent barons in the stateliness of his demeanour, the sumptuousness of his apparel, and the splendour of his retinue. The nobles, while they despised the lowness of his birth, and detested him as a foreigner and a favourite, were mortified with his grandeur, and insulted with his arrogance. Their anger and abhorrence were driven into fury; and while this undeserving minion, to uphold his power, courted Darnley, and with officious assiduities advanced his suit with the queen, he hastened not only his own ruin, but laid the foundation of cruel outrages and of public calamity.

670 The earl of Murray loses the queen's favour.

To the earl of Murray the exaltation of Rizzio, so offensive in general to the nation, was humiliating in a more particular degree. His interference for the earl of Leicester, the partiality he entertained for Elizabeth, his connexions with Secretary Cecil, and the favour he had shown to Knox, had all contributed to create in Mary a suspicion of his integrity. The practices of Darnley and Rizzio were thence the more effectual; and the fullest weight of their influence was employed to undermine his power. His passions and disgusts were violent; and in his mind he meditated revenge. Mary, aware of her critical situation, was solicitous to add to her strength. Bothwel, who had been imprisoned for conspiring against the life of the Earl of Murray, and who had escaped from confinement, was recalled from France; the earl of Sutherland, an exile in Flanders, was invited home to receive his pardon; and George Gordon, the son of the earl of Huntly, was admitted to favour, and was soon reinstated in the wealth and honours of his family.

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As soon as Bothwel arrived, the earl of Murray insisted that he should be brought to trial for having plotted against his life, and for having broke from the place of his confinement. This was agreed to; and on the day of trial Murray made his appearance with 800 of his adherents. Bothwel did not choose to contend with such a formidable enemy; he therefore fled to France, and a protestation was made, importing that his fear of violence had been the cause of his flight. The queen commanded the judge not to pronounce sentence. Murray complained loudly of her partiality, and engaged more deeply in cabals with Queen Elizabeth. Darnley, in the mean time, pressed his suit with eagerness. The queen used her utmost endeavours to make Murray subscribe a paper expressing a consent to her marriage; but all was to no purpose. Many of the nobility, however, subscribed this paper; and she ventured to summon a convention of the estates at Stirling, to whom she opened the business of the marriage; and who approved her choice, provided the Protestant should continue to be the established religion of the country.

In the mean time ambassadors arrived from England, with a message importing Elizabeth's entire disapprobation and disallowance of the queen's marriage with Lord Darnley. But to these ambassadors Mary replied only, that matters were gone too far to be recalled; and that Elizabeth had no solid cause of displeasure, since, by her advice, she had fixed her affections not on a foreigner, but on an Englishman; and since the person she favoured was descended of a distinguished lineage, and could boast of having in his veins the royal blood of both kingdoms. Immediately after this audience she created lord Darnley a lord and a knight. The oath of knighthood was administered to him. He was made a baron and a banneret, and called *Lord Armanagh*. He was belted earl of Ross. He then promoted 14 gentlemen to the honour of knighthood, and did homage to the queen, without any reservation of duty to the crown of England, where his family had for a long time resided. His advancement to be duke of Albany was delayed for a short time; and this was so much resented by him, that, when informed of it by the lord Ruthven, he threatened to stab that nobleman.

In the mean time the day appointed for the assembly of parliament, which was finally to determine the subject of the marriage, was now approaching. The earl of Murray, encouraged by the apparent firmness of Elizabeth, goaded on by ambition, and alarmed with the approbation bestowed by the convention of the estates on the queen's choice of Lord Darnley, perceived that the moment was at hand when a decisive blow should be struck. To heighten the resentments of his friends, and to justify in some measure the violence of his projects, he affected to be under apprehensions of being assassinated by the lord Darnley. His fears were sounded abroad; and he avoided going to Perth, where he affirmed that the plot against him was to be carried into execution. He courted the enemies of Darnley with unceasing assiduity; and united to him in a confederacy the duke of Chatelherault, and the earls of Argyle, Rothes, and Glencairn. It was not the sole object of their association to oppose the marriage. They engaged in more criminal enterprises. They meditated the death of the earl of Lenox and the lord Darnley; and while the queen was on the road to Calendar place to visit the lord Livingston, they proposed to intercept her and to hold her in captivity. In this state of her humiliation, Murray was to advance himself to the government of the kingdom, under the character of its regent. But Mary having received intelligence of their conspiracy, the earl of Athol and the lord Ruthven suddenly raised 300 men to protect her in her journey. Defeated in this scheme, the earl of Murray and his associates did not relinquish their cabals. They projected new achievements; and the nation was filled with alarms, suspicions, and terror.

671 An association against the queen and Darnley.

672 Disturbances raised by the Protestants.

Amidst the arts employed by the Scottish malcontents to inflame the animosities of the nation, they forgot not to insist on the dangers which threatened the Protestant religion from the advancement of Lord Darnley, and from the rupture that must ensue with England. Letters were everywhere dispersed among the faithful, reminding them of what the eternal God had wrought for them in the abolition of idolatry, and admonishing

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monishing them to oppose the restoration of the mass. A supplication was presented to the queen, complaining of idolaters, and insisting on their punishment. In the present juncture of affairs it was received with unusual respect; and Mary instructed the Popish ecclesiastics to abstain from giving offence of any kind to the Protestants. A priest, however, having celebrated the mass, was taken by the brethren, and exposed to the insults and fury of the populace at the market-place of Edinburgh, in the garments of his profession, and with the chalice in his hand; and the queen having given a check to this tumultuous proceeding, the Protestants, rising in their wrath, were the more confirmed in the belief that she meant to overthrow their religion. The most learned and able of the clergy held frequent consultations together; and while the nation was disturbed with dangerous ferments, the general assembly was called to deliberate on the affairs of the church. Their hope of success being proportioned to the difficulties in the situation of the queen, they were the less scrupulous in forming their resolutions; and the commissioners, whom they deputed to her, were ordered to demand a parliamentary ratification of their desires.

673 Their demands.

They insisted, that the mass, with every remnant of popery, should be universally suppressed throughout the kingdom; that in this reformation, the queen's person and household should be included; and that all Papists and idolaters should be punished on conviction, according to the laws. They contended, that persons of every description and degree should resort to the churches on Sunday, to join in prayers, and to attend to exhortations and sermons; that an independent provision should be assigned for the support of the present clergy, and for their successors; that all vacant benefices should be conferred on persons found qualified for the ministry, on the trial and examination of the superintendants; that no bishopric, abbey, priory, deanery, or other living, having many churches, should be bestowed on a single person; but that, the plurality of the foundation being dissolved, each church should be provided with a minister; that glebes and manses should be allotted for the residence of the ministers, and for the reparation of churches; that no charge in schools or universities, and no care of education, either public or private, should be intrusted to any person who was not able and sound in doctrine, and who was not approved by the superintendants; that all lands which had formerly been devoted to hospitality, should again be made subservient to it; that the lands and rents which formerly belonged to the monks of every order, with the annuities, altarages, obits, and the other emoluments which had appertained to priests, should be employed in the maintenance of the poor and the upholding of schools; that all horrible crimes, such as idolatry, blasphemy, breaking of the sabbath, witchcraft, sorcery, inchantment, adultery, manifest whoredom, the keeping of brothels, murder, and oppression, should be punished with severity; that judges should be appointed in every district, with powers to pronounce sentences and to execute them; and, in fine, that for the ease of the labouring husbandmen, some order should be devised concerning a reasonable payment of the tythes.

674 Moderation of the queen.

To these requisitions, the queen made an answer full of moderation and humanity. She was ready to agree with the three estates in establishing the reformed religion over the subjects of Scotland; and she was steadily resolved not to hazard the life, the peace, or the fortune, of any person whatever on account of his opinions. As to herself and her household, she was persuaded that her people would not urge her to adopt tenets in contradiction to her own conscience, and thereby involve her in remorse and uneasiness. She had been educated and brought up in the Romish faith; she conceived it to be founded on the word of God; and she was desirous to continue in it. But, setting aside her belief and religious duty, she ventured to assure them, that she was convinced from political reasons, that it was her interest to maintain herself firm in the Catholic persuasion. By departing from it, she would forfeit the amity of the king of France, and that of other princes who were now strongly attached to her; and their disaffection could not be repaired or compensated by any new alliance. To her subjects she left the fullest liberty of conscience; and they could not surely refuse to their sovereign the same right and indulgence. With regard to the patronage of benefices, it was a prerogative and property which it would ill become her to violate. Her necessities, and the charge of her royal dignity, required her to retain in her hands the patrimony of the crown. After the purposes, however, of her station, and the exigencies of government, were satisfied, she could not object to a special assignment of revenue for the maintenance of the ministry; and, on the subject of the other articles which had been submitted to her, she was willing to be directed by the three estates of the kingdom, and to concur in the resolutions which should appear to them most reasonable and expedient.

675 The Protestants are displeased with her answer.

The clergy, in a new assembly or convention, expressed great displeasure with this return to their address. They took the liberty of informing the queen, that the doctrines of the reformation which she refused to adopt, were the religion which had been revealed by Jesus Christ, and taught by his apostles. Popery was of all persuasions the least alluring, and had the fewest recommendations. In antiquity, consent of people, authority of princes, and number of proselytes, it was plainly inferior to Judaism. It did not even rest on a foundation so solid as the doctrines of the Koran. They required her, therefore, in the name of the eternal God, to embrace the means of attaining the truth, which were offered to her in the preaching of the word, or by the appointment of public disputations between them and their adversaries. The terrors of the mass were placed before her in all their deformity. The performer of it, the action itself, and the opinions expressed in it, were all pronounced to be equally abominable. To hear the mass, or to gaze on it, was to commit the complicated crimes of sacrilege, blasphemy, and idolatry. Her delicacy in not renouncing her opinions from the apprehension of offending the king of France and her other allies, they ridiculed as impertinent in the highest degree. They told her, that the true religion of Christ was the only means by which any confederacy could endure; and that it was far more precious than the alliance of any potentate whatever, as it would bring to her the friendship of the King of kings. As to patronages, being a portion of her patrimony, they intended not to defraud her of her rights: but it was their judgment, that the superintendants ought to make a trial of the qualifications of candidates for the ministry; and

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and as it was the duty of the patron to present a person to the benefice, it was the business of the church to manage his institution or collation. For without this restraint, there would be no security for the fitness of the incumbent; and if no trials or examinations of ministers took place, the church would be filled with misrule and ignorance. Nor was it right or just that her majesty should retain any part of the revenue of benefices; as it ought to be all employed for the uses of the clergy, for the purposes of education, and for the support of the poor. And as to her opinion, that a suitable assignment should be made for them, they could not but thank her with reverence: but they begged leave to solicit and importune her to condescend on the particulars of a proper scheme for this end, and to carry it into execution; and that, taking into due consideration the other articles of their demands, she would study to comply with them, and to do justice to the religious establishment of her people.

676 They rise in arms, but are soon quelled.

From the fears of the people about their religion, disturbances and insurrections were unavoidable; and before Mary had given her answer to the petitions or address of the clergy, the Protestants, in a formidable number, had marched to St Leonard's Craig; and, dividing shemselves into companies, had chosen captains to command them. But the leaders of this tumult being apprehended and committed to close custody, it subsided by degrees; and the queen, on the intercession of the magistrates of Edinburgh, instead of bringing them to trial, gave them a free pardon. To quiet, at the same time, the apprehensions which had gone abroad, and to controvert the insidious reports which had been industriously spread of her inclination to overturn the reformed doctrines, she repeatedly issued proclamations, assuring her subjects that it was her fixed determination not to molest or disturb any person whatever on account of his religion or conscience; and that she had never presumed even to think of any innovation that might endanger the tranquillity or prejudice the happiness of the commonwealth.

677 Intrigues of the rebellious nobles with Elizabeth.

While Mary was conducting her affairs with discernment and ability, the earl of Murray and his confederates continued their consultations and intrigues. After their disappointment in the conspiracy against the queen and the lord Darnley, they perceived that their only hope of success or security depended on Elizabeth; and as Randolph had promised them her protection and assistance, they scrupled not to address a letter to her, explaining their views and situation. The pretences of their hostility to their sovereign which they affected to insist on, were her settled design of overturning the Protestant religion, and her rooted desire to break off all correspondence and amity with England. To prevent the accomplishment of these purposes, they said, was the object of their confederacy; and with her support and aid they did not doubt of being able effectually to advance the emolument and advantage of the two kingdoms. In the present state of their affairs, they applied not, however, for any supply of troops. An aid from her treasury only was now necessary to them; and they engaged to bestow her bounty in the manner most agreeable to her inclinations and her interests. The pleasure with which Elizabeth received their applications was equal to the aversion she had conceived against the queen of Scots. She not only granted them the relief they requested, but assured them by Randolph of her esteem and favour while they should continue to uphold the reformed religion and the connexion of the two nations. Flattered by her assurances and generosity, they were strenuous to gain partisans, and to disunite the friends of their sovereign; and while they were secretly preparing for rebellion, and for trying their strength in the field, they disseminated among the people the tenets, That a Papist could not legally be their king; that the queen was not at liberty of herself to make the choice of a husband; and that, in a matter so weighty, she ought to be entirely directed by the determination of the three estates assembled in parliament.

678 Treachery of Elizabeth.

Elizabeth, at the same time, carrying her dissimulation to the most criminal extremity, commanded Randolph to ask an audience of Mary; and to counsel her to nourish no suspicions of the earl of Murray and his friends; to open her eyes to their sincerity and honour; and to call to mind, that as their services had hitherto preserved her kingdom in repose, her jealousies of them might kindle it into combustion, make the blood of her nobles flow, and hazard her person and her crown. Full of astonishment at a message so rude and improper, the queen of Scots desired him to inform his mistress, that she required not her instructions to distinguish between patriotism and treachery; that she was fully sensible when her will or purpose was resisted or obeyed; and that she possessed a power which was more than sufficient to repress and to punish the enormities and the crimes of her subjects. The English resident went now to the earl of Lenox, and the lord Darnley, and charged them to return to England. The former expressed an apprehension of the severity of his queen, and sought an assurance of her favour before he could venture to visit her dominions. The latter, exerting greater fortitude, told him, that he acknowledged no duty or obedience but to the queen of Scots. The resident treating this answer as disrespectful to Elizabeth, turned his back upon the lord Darnley, and retired without making any reverence, or bidding him adieu.

The behaviour of Elizabeth, so fierce and so perfidious, was well calculated to confirm all the intentions of Mary; and this, doubtless, was one of the motives by which she was actuated. But while the queen of Scots was eager to accomplish her marriage, she was not inattentive to the rising troubles of her country. The parliament which she had appointed could not now be held; it was therefore prorogued to a more distant period; and the violence of the times did not then permit it to assemble. By letters she invited to her, with all their retainers, the most powerful and most eminent of her subjects. Bothwel was again recalled from France; and by general proclamation she summoned to her standard the united force of her kingdom. The castle of Edinburgh was likewise amply provided with stores and ammunition, that, in the event of misfortunes, it might afford her a retreat and defence. The alacrity with which her subjects flocked to her from every quarter, informed her of her power and popularity; and while it struck Murray and his adherents with the danger to which they were exposed, it declared to them the opinion entertained by the nation of the iniquity and the selfishness of their proceedings.

On the 29th of July 1565, the ceremony of marriage

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679 Marriage of Mary with Lord Darnley.

680 He is proclaimed king of Scotland.

riage between the queen and Lord Darnley was performed. The latter had been previously created duke of Albany. The day before the marriage, a proclamation was published, commanding him to be styled *king of the realm*, and that all letters after their marriage should be directed in the names of her husband and herself. The day after it, a new proclamation was issued confirming this act: he was pronounced king by the sound of trumpets, and associated with the queen in her government. This measure seems to have been the effect of the extreme love the queen had for her husband, which did not permit her to see that it was an infringement of the constitution of the kingdom; though perhaps she might also be urged to it by the pressing eagerness of Lord Darnley himself, and the partial counsels of David Rizzio. The earl of Murray made loud complaints, remonstrated, that a king was imposed on the nation without the consent of the three estates, and called on the nation to arm against the beginnings of tyranny. The malecontents accordingly were immediately in arms; but their success was not answerable to their wishes. The bulk of the nation were satisfied with the good intentions of their sovereign, and she herself took the earliest opportunity of crushing the rebellion in its infancy.

681 The rebellious nobles driven into England.

The earl of Murray was declared a traitor; and similar steps were taken with other chiefs of the rebels. She then took the field against them at the head of a considerable army; and having driven them from one place to another, obliged them at last to take refuge in England. Queen Elizabeth received them with that duplicity for which her conduct was so remarkable. Though she herself had countenanced, and even excited them to revolt, she refused to give an audience to their deputies. Nay, she even caused them to issue a public declaration, that neither she, nor any person in her name, had ever excited them to their rebellious practices. Yet, while the public behaviour of Elizabeth was so acrimonious, she afforded them a secure retreat in her kingdom, treated the earl of Murray in private with respect and kindness, and commanded the earl of Bedford to supply him with money. Mary, however, resolved to proceed against the rebels with an exemplary rigour. The submissions of the duke of Chatelherault alone, who had been less criminal than the rest, were attended to. But even the favour which he obtained was precarious and uncertain; for he was commanded to use the pretence of sickness, and to pass for some time into foreign countries. A parliament was called; and a summons of treason being executed against the earls of Argyle, Glencairn, and Rothes, with others of the principal rebels, they were commanded to appear before the three estates; in default of which their lives and estates were declared forfeited.

682 Mary accedes to the treaty of Bayonne.

In the mean time Throgmorton the English ambassador solicited the pardon of the rebels; which Mary was at first inclined to grant. By the persuasion of the court of France, however, she was not only induced to proceed against them with rigour, but acceded to the treaty of Bayonne, by which the destruction of the Protestants was determined. This measure filled the whole court with terror and dismay. The rebels were acquainted with the danger of their situation; and being now rendered desperate, they were ready to engage in the most atrocious designs. Unhappily, the situation of affairs in Scotland rendered the accomplishment of their purposes but too easy.

683 Quarrels between the queen and her husband.

Violent disgusts had taken place between the queen and her husband. Her fondness had been excessive; but she soon perceived that the qualities of his mind were not proportioned to his personal accomplishments. He was proud, disdainful, and suspicious. No persuasions could correct his obstinacy; and he was at the same time giddy and obstinate, insolent and mean. The queen in consequence began to show an indifference towards him; which he took care to augment, by showing the like indifference towards her, and engaging in low intrigues and amours, indulging himself in dissipation and riot, &c. The desire of dominion was his ruling passion however; and the queen, finding his total incapacity for exercising his power to any good purpose, had excluded him from it altogether. He was therefore at present a proper object for the machinations of the rebels, and readily entered into an agreement with them to depose the queen; vainly thinking by that means to secure the crown to himself. As the parliament was soon to assemble, in which the rebels had every reason to believe that they would be condemned for high treason, it was necessary that the kingdom should be thrown into disorder before that time, otherwise their fate was inevitable.

684 The king conspires the destruction of David Rizzio, with the rebellious nobles. An. 1566.

Practising on the imbecility of Darnley, they persuaded him that a criminal correspondence subsisted between the queen and David Rizzio (R). For this reason the king resolved on his destruction; and the conspirators

(R) That there subsisted a criminal intercourse between Mary and Rizzio is a scandal which is now given up by her enemies. It seems to rest on the authority of Buchanan and Knox; and their evidence in this case is clearly of no weight, not only from their being the strenuous partisans of her adversaries, but from the multitude of falsehoods which they anxiously detail to calumniate her. The love she felt for Darnley was extreme, and their acquaintance commenced a month or two after the appointment of Rizzio to be her secretary for French affairs. She became pregnant soon after her marriage; and it was during her pregnancy that Rizzio was assassinated. These are striking presumptions in her favour. And what seems to put her innocence out of all question, is the silence of the spies and residents of Elizabeth with regard to this pretended amour; for, if there had been any thing real in it, they could not have made their court to their queen more effectually than by declaring to her its particulars; and their want of delicacy, so observable in other circumstances, would have induced them on this occasion to give the greatest foulness and deformity to their information.

It appears that Rizzio was ill-favoured, and of a disagreeable form. Buchanan says of him, "Non faciem cultus honestabat, sed facies cultum destruebat." *Hist. Scot.* lib. xvii. This expression is very strong; but it would have little weight if other authors had not concurred in giving a similar description of Rizzio. In a book intitled, "Le Livre de la Morte de la Reyne d'Ecosse," and printed in the year 1587, he is said to be "disgracié de corps." *Caussin, ap. Jebb*, p. 37. This work, too, while it records the unkindness of nature to his

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conspirators hoped thus not only to get an indemnity to themselves, but to effect a total revolution at court, and the entire humiliation of Bothwel, Huntly, and Athol, who were the associates of Rizzio. In order to save themselves, however, they engaged the king to subscribe a bond, affirming that the project of assassinating Rizzio was altogether of his own devising; acknowledging that he had solicited them to take a part in it, from the apprehensions that resistance might be made to him; and agreeing, on the word and honour of a prince, to protect and secure them against every hazard and injury to which they might be exposed from the achievement of his enterprise. Having procured this security, and having allured the earl of Lennox the king's father to approve of their measures, they adjusted the method of the projected murder; and despatched a messenger to the English frontier, advertising the earl of Murray and the rebels of their intentions, and inviting them to return to the court.

685 Rizzio cruelly murdered.

On the 9th of March, about seven o'clock in the evening, armed men, to the number of 500, surrounded the palace of Holyroodhouse. The earl of Morton and the lord Lindsay entered the court of the palace, with 160 persons. The queen was in her chamber at supper, having in her company her natural sister the countess of Argyle, her natural brother Robert, commendator of Holyroodhouse, Beton of Creich master of the household, Arthur Erskine, and David Rizzio. The king entering the apartment, seated himself by her side. He was followed by the lord Ruthven, who being wasted with sickness, and cased in armour, exhibited an appearance that was hideous and terrible. Four ruffians attended him. In a hollow voice he commanded Rizzio to leave a place which did not become him. The queen, in astonishment and consternation, applied to the king to unfold to her this mysterious enterprise. He affected ignorance. She ordered Ruthven from her presence, under the penalty of treason; declaring at the same time, that if Rizzio had committed any crime, she would produce him before the parliament, and punish him according to the laws. Ruthven drawing his dagger, advanced towards Rizzio. The queen rose to make an exertion of her authority. The unfortunate stranger laid hold of her garments, crying out for justice and mercy. Other conspirators, rushing into the chamber, overturned the table, and increased the dismay and confusion. Loaded pistols were presented to the bosom of the queen. The king held her in his arms. George Douglas, snatching the dagger of his sovereign, plunged it into the body of Rizzio. The wounded and screaming victim was dragged into the antichamber; and so eager were the assassins to complete their work, that he was torn and mangled with 56 wounds.

While the queen was pressing the king to satisfy her inquiries into the meaning of a deed so execrable, Ruthven returned into their presence. She gave a full vent to indignation and reproach. Ruthven, with an intolerable coldness and deliberation, informed her, that Rizzio had been put to death by the counsel of her husband, whom he had dishonoured; and that by the persuasion of this minion she had refused the crown-matrimonial to the king, had engaged to re-establish the ancient religion, had resolved to punish the earl of Murray and his friends, and had entrusted her confidence to Bothwel and Huntly, who were traitors. The king, taking the part of Ruthven, remonstrated against her proceedings, and complained that from the time of her familiarity with Rizzio, she had neither regarded, nor entertained, nor trusted him. His suspicions and ingratitude shocked and tortured her. His connexion with the conspirators gave her an ominous anxiety. Apprehensions of outrages still more atrocious invaded her. In these agitated and miserable moments she did not lose herself in the helplessness of sorrow. The loftiness of her spirit communicated relief to her; and wiping away her tears, she exclaimed, that it was not now a season for lamentation, but for revenge.

The earls of Huntly, Bothwel, and Athol, the lords Fleming and Levingston, and Sir James Balfour, who were obnoxious to the conspirators, and at this time in the palace, found all resistance vain. Some of them eluding the vigilance of Morton, made their escape; and others were allowed to retire. The provost and magistrates of Edinburgh getting intelligence of the tumult, ordered the alarm bell to be rung. The citizens, apprehensive and anxious, approached in crowds to inquire into the welfare of their sovereign; but she was not permitted to address herself to them. The conspirators told her, that if she presumed to make any harangue, they would "cut her in pieces, and cast her over the walls." The king called to the people that she was well, and commanded them to disperse. The queen was shut up in her chamber, uncertain of her fate, and without the consolation or attendance of her women.

686 The queen confined and threatened.

In the morning a proclamation was issued by the king, without the knowledge of his queen, prohibiting the meeting of parliament, and ordering the members to retire from the city. The rebellious lords now returned from England, and arrived at Edinburgh within 24 hours after the assassination of Rizio. The queen, knowing of how much consequence it was for her to gain the earl of Murray, invited him to wait on her. Notwithstanding the extreme provocation which she had met with, Mary so far commanded her passions, that she gave him a favourable reception. After informing him of the rudeness and severity of the treatment she had received, the queen observed, that if he had remained in friendship with her at home, he would have protected her against such excesses of hardship

687 She endeavours in vain to gain the earl of Murray;

his person, has observed, that he was in his old age when he made a figure in the court of Mary. "Elle traittoit ordinairement avec David Riccio son secretaire, homme agé et prudent, qui possedoit son oreille." *Ibid.* And other authors give their testimonies to the same purpose.

It is probable that the panegyrists of Mary exaggerate somewhat the imperfections as well as the good qualities of Rizzio. But there seems in general to be no reason to doubt his fidelity and talents, any more than his ugliness and senility. He had therefore a better title to be her secretary than her lover. It is an absurdity to think that a queen so young and beautiful would yield herself to deformity and old age.

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hardship and insult. Murray, with a hypocritical compassion, shed abundance of tears; while the queen seemed to entertain no doubt of his sincerity, but gave him room to hope for a full pardon of all his offences. In the mean time, however, the conspirators held frequent consultations together, and in these it was debated, whether they should hold the queen in perpetual captivity, or put her to death; or whether they should content themselves with committing her to close custody in Stirling castle till they should obtain a parliamentary sanction to their proceedings, establish the Protestant religion by the total overthrow of the mass, and invest the king with the crown-matrimonial and the government of the kingdom.

688 But prevails on the king to abandon the cause of the conspirators;

Mary now began to perceive the full extent of her wretchedness; and therefore, as her last resource, applied to the king, whom she treated with all those blandishments usually employed by the fair sex when they want to gain the ascendency over the other. The king, who, with all his faults, had a natural facility of temper, was easily gained over. The conspirators were alarmed at his coldness, and endeavoured to fill his mind with fears concerning the duplicity of his wife: but, finding they could not gain their point, they at last began to treat for an accommodation. The king brought them a message, importing, that Mary was disposed to bury in oblivion all memory of their transgressions; and he offered to conduct them into her presence. The earls of Murray and Morton, with the lord Ruthven, attended him into her presence; and, falling on their knees before the queen, made their apologies and submissions. She commanded them to rise; and having desired them to recollect her abhorrence of cruelty and rapacity, she assured them with a gracious air, that instead of designing to forfeit their lives, and possess herself of their estates, she was inclined to receive them into favour, and to grant a full pardon, not only to the nobles who had come from England, but to those who had assassinated David Rizzio. They were accordingly ordered to prepare the bonds for their security and forgiveness, which the queen promised to take the earliest opportunity of subscribing; but in the mean time the king observed, that the conspirators ought to remove the guards which they had placed around the queen, that all suspicion of restraint might be removed. This measure could not with any propriety be opposed, and the guards were therefore dismissed; on which the queen, that very night, left her palace at midnight, and took the road to Dunbar, accompanied by the king and a few attendants.

689 and escapes from them.

The news of the queen's escape threw the conspirators into the utmost consternation; and she immediately issued proclamations for her subjects to attend her in arms, and was powerfully supported. They sent therefore the lord Semple, requesting, with the utmost humility, her subscription to their deeds of pardon and security: but to this message she returned an unfavourable answer, and advanced towards Edinburgh with an army of 8000 men. The conspirators now fled with the utmost precipitation. Even John Knox retired to Kyle till the storm should blow over. On the queen's arrival at Edinburgh, a privy council was instantly called, in which the conspirators were charged to appear as guilty of murder and treason; their places of strength were ordered to be surrendered to the officers of the crown; and their estates and possessions were made liable to confiscation and forfeiture.

690 The rebellious nobles are declared traitors.

But while the queen was thus eager to punish the conspirators, she was sensible that so many of the nobility, by uniting in a common cause, might raise a powerful party in opposition to her; for which reason she endeavoured to detach the earl of Murray from the rest, by making him offers of pardon. Sir James Melvil accordingly pledged himself to produce his pardon and that of his adherents, if he would separate from Morton and the conspirators. He accordingly became cold and distant to them, and exclaimed against the murder as a most execrable action; but notwithstanding his affected anger, when the conspirators fled to England, he furnished them with letters of recommendation to the earl of Bedford. After the flight of the conspirators, the king thought it necessary for him to deny his having any share in the action. He therefore embraced an opportunity of declaring to the privy council his total ignorance of the conspiracy against Rizzio; and not satisfied with this, he, by public proclamations at the market-place of the capital, and over the whole kingdom, protested to the people at large that he had never bestowed on it, in any degree, the sanction of his command, consent, assistance, or approbation.

691 Shameful prevarication of the king.

In the mean time, the queen granted a full and ample pardon to the earls of Murray, Argyle, Glencairn, and Rothes, and their adherents; but towards the conspirators she remained inexorable. This lenity, to Murray especially, proved a source of the greatest inquietude to the queen; for this nobleman, blind to every motive of action distinct from his own ambition, began to contrive new plots, which, though disappointed for a time, soon operated to the destruction of the queen, and almost to the ruin of the nation.

692 Murray and some others of the rebels are pardoned.

On the 19th of June 1566, the queen was delivered of a prince, who received the name of *James*. This happy event, however, did not extinguish the quarrel betwixt her and the king. His desire to intrude himself into her authority, and to fix a stain on her honour, his share in the murder of Rizzio, and his extreme meanness in publicly denying it, could not fail to impress her with the strongest sentiments of detestation and contempt. Unable, however, totally to divest herself of regard for him, her behaviour, though cold and distant, was yet decent and respectful. Castelnau, at this time ambassador extraordinary from France, conceived that a reconciliation might be effected, and employed himself for some time in this friendly office. Nor were his endeavours altogether ineffectual. The king and queen spent two nights together; and proceeded, in company with each other, to Meggatland in Tweeddale, in order to enjoy the diversion of the chase, attended by the earls of Huntly, Bothwel, Murray, and other nobles. Thence they passed to Edinburgh, and then took the road to Stirling. Had the king been endowed with any prudence, he would have made the best use of this opportunity to regain the affections of his queen; but, instead of this, finding that he was not immediately intrusted with power, his peevishness suggested to him the design of going abroad. To Monsieur du Croc, the French resident, who had attended Mary at Stirling, he ventured to communicate his chimerical project. This statesman represented to him its wildness and inefficacy; and could scarcely believe that he was serious.

693 Birth of James VI. 19th June 1566.

694 A partial reconciliation between the king and queen.

695 Which is broken off by the king's imprudent behaviour.

ous. To his father the earl of Lenox, who paid him a visit at this place immediately on Mary's departure from it, he likewise communicated his intention; and all the intreaties, arguments, and remonstrances of this nobleman to make him relinquish his design, were without success. He provided a vessel, and kept it in readiness to carry him from Scotland. The earl of Lenox, after returning to Glasgow, where he usually resided, gave way to his paternal anxieties, and solicited the queen by letter to interfere with her authority and persuasions; and on the evening of the day in which she received this despatch, the king alighted at Holyroodhouse. But the names of the nobles who were with the queen being announced to him, he objected to three of them, and insisted that they should be ordered to depart, before he would enter within the gates of the palace. The queen, alarmed with a demeanour so rude and so unwarrantable, condescended to leave her company and her palace to meet him; and it was with great difficulty that she was able to entice him into her own apartment. There he remained with her during the night. She communicated to him his father's letter, and employed every art and blandishment to engage him to abandon his perverse design. But he gave her no satisfaction. He was unmoved by her kindness; and his silence, dejection, and peevishness, augmented her distress. In the morning, she called her privy council to assemble in the palace, and invited to her Monsieur du Croc the French envoy. By the bishop of Ross she explained the intention of the king, and made known the despatch of the earl of Lenox. The privy council were urgent to know the reasons of a voyage that appeared to them so inexplicable; and earnestly pressed the king to unbosom himself. If his resolution proceeded from discontent, and if there were persons in the kingdom who had given him causes of offence, they assured him, that they were ready, upon his information, to take the necessary steps to make him easy and happy. No quality or rank should exempt those from enquiry and punishment who had committed misdemeanors against him. This, they said, consisted with his honour, with the honour of the queen, and with their own. If, however, he had received no sufficient provocation to justify his behaviour, and if he had no title to complain of actual injuries, they admonished him to remember, that his flight from a queen so beautiful, and from a kingdom so ancient and noble, would expose him to the greatest ridicule and disgrace. They pointed out the happiness of his fortune, and counselled him not to part lightly with all its flattering advantages. The queen herself, taking his hand into her's, and pressing it with affection, besought him to say by what act or deed she had unfortunately induced him to conceive so fatal a purpose. Her memory did not reproach her with any crime or indiscretion which affected his honour or her integrity: yet if, without any design on her part, she had incurred his displeasure, she was disposed to atone for it; and she begged him to speak with entire freedom, and not in any degree to spare her. Monsieur du Croc then addressed him, and employed his interest and persuasions to make him reveal his inquietudes. But all this respectful attention and ceremonious duty were ineffectual. Obstinately froward, he refused to confess that he intended any voyage, and made no mention of any reasons of discontent. He yet acknowledged with readiness, that he could not with justice accuse the queen of any injury or offence. Oppressed with uneasiness and perturbation, he prepared to retire; and, turning to her, said, "Adieu, Madam! you shall not see me for a long time." He then bowed to the French envoy, and to the lords of the privy council.

He hastened back to Stirling, leaving the queen and her council in surprise and astonishment. They resolved to watch his motions with anxiety, and could not conjecture what step he would take. Mary, to prevent the effect of rumours to her disadvantage, despatched a courier to advertise the king of France and the queen-mother of his conduct. It was not possible that a prince so meanly endowed with ability could make any impression on her allies. Nor did it appear to be in his power to excite any domestic insurrection or disturbance. He was universally odious; and, at this time, the queen was in the highest estimation with the great body of her subjects. After passing some days at Stirling, he addressed a letter to the queen, in which, after hinting at his design of going abroad, he insinuated his reasons of complaint. He was not trusted by her with authority, and she was no longer studious to advance him to honour. He was without attendants; and the nobility had deserted him. Her answer was sensible and temperate. She called to his remembrance the distinctions she had conferred on him, the uses to which he had put the credit and reputation accruing from them, and the heinous offences he had encouraged in her subjects. Though the plotters against Rizzio had represented him as the leader of their enterprise, she had yet abstained from any accusation of him, and had even behaved as if she believed not his participation in the guilt of that project. As to the defects of his retinue, she had uniformly offered him the attendance of her own servants. As to the nobility, they were the supports of the throne, and independent of it. Their countenance was not to be commanded but won. He had discovered too much stateliness towards them; and they were the proper judges of the deportment that became them. If he wished for consequence, it was his duty to pay them court and attention; and whenever he should procure and conciliate their regard and commendation, she would be happy to give him all the importance that belonged to him.

In the mean time, the earls of Murray and Bothwel were industriously striving to widen the breach between the king and queen, and at the same time to foment the division between the king and his nobles. The earl of Morton excited disturbances on the borders; and as no settled peace had taken place there since Mary's marriage, there was the greatest reason to believe that he would succeed in his attempts. Proclamations were therefore issued by the queen to call her subjects to arms; and she proceeded to Jedburgh to hold justice-courts, and to punish traitors and disorderly persons. In the course of this journey she was taken dangerously ill; insomuch that, believing her death to be at hand, she called for the bishop of Ross, telling him to bear witness that she had persevered in that religion in which she had been nourished and brought up; taking the promise of her nobles, that after her death they would open her last will and testament, and pay to it that respect which consisted with the laws, recommending

696 Mary falls sick, but recovers.

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mending to them the rights of her infant son, and the charge of educating him in such a manner as might enable him to rule the kingdom of his ancestors with honour; and intreating them to abstain from all cruelty and persecution of her Catholic subjects. Nothwithstanding her apprehensions, however, and the extreme violence of her distemper, the queen at last recovered perfect health. As soon as she was able to travel, she visited Kelso, Werk castle, Hume, Langton, and Wedderburn. The licentious borderers, on the first news of her recovery, laid down their arms. Being desirous to take a view of Berwick, the queen advanced to it with an attendance of 1000 horse. Sir John Forster, the deputy warden of the English marches, came forth with a numerous retinue, and conducted her to the most proper station for surveying it, and paid her all the honours in his power, by a full discharge of the artillery, and other demonstrations of joy. Continuing her journey, she passed to Eyemouth, Dunbar, and Tantallon; proceeding thence to Craigmillar castle, where she proposed to remain till the time of the baptism of the prince, which was soon to be celebrated at Stirling.

697 Unkindness of the king.

During the severe sickness of the queen, her husband kept himself at a distance: but when she was so far recovered as to be out of danger, he made his appearance; and being received with some coldness and formality, he retired suddenly to Stirling. This cruel neglect was a most sensible mortification to her; and while she suffered from his ingratitude and haughtiness, she was not without suspicion that he was attempting to disturb the tranquillity of her government. She was seized with a settled melancholy; and, in her anguish, often wished for death to put a period to her existence. Her nobles, who were caballing against her, remarked her condition, and took advantage of it. Bothwel, who had already recommended himself by his services, redoubled his efforts to heighten the favour which these services had induced her to conceive for him. At this time, it is probable, he sought to gain the affection of the queen, with a view to marry her himself, providing a divorce from her husband could be obtained; and this was now become the subject of consultation by Murray and his associates. After much deliberation, the queen herself was made acquainted with this project; and it was told her, that provided she would pardon the earl of Morton and his associates, the means should be found of effecting the divorce. This was urged as a matter of state by the earls of Murray, Lethington, Argyle, and Huntly; and the queen was invited to consider it as an affair which might be managed without any interference on her part. The queen replied, that she would listen to them, on condition that the divorce could be obtained according to law, and that it should not be prejudicial to her son: but if they meant to effect their purpose by a disregard to these points, they must think no more of it; for rather than consent to their views, she would endure all the torments, and abide by all the perils, to which her situation exposed her.

698 A divorce is proposed.

Lethington on this, in the name of the rest, engaged to rid her of her husband, without prejudice to her son; words which could not be understood otherwise than as pointing at murder. Lord Murray (added he), who is here present, scrupulous as he is, will connive; and behold our proceedings without opening his lips. The queen immediately made answer, "I desire that you will do nothing from which any stain may be fixed upon my honour or conscience; and I therefore require the matter to rest as it is, till God of his goodness send relief: What you think to be of service to me, may turn out to my displeasure and harm."

It appears, however, that from this moment a plot was formed by Murray, Bothwel, and Lethington, against the life of Darnley, and by some of them probably against the queen herself; and that Morton, who with the other conspirators against Rizzio had received a pardon, was closely associated with them in their nefarious designs. That profligate peer was, in his way to Scotland, met at Whittingham by Bothwell and the secretary. They proposed to him the murder of the king, and required his assistance, alleging that the queen herself consented to the deed; to which Morton by his own account replied, that he was disposed to concur, provided he were sure of acting under any authority from her; but Bothwel and Lethington having returned to Edinburgh, on purpose to obtain such an authority, sent him back a message, That the queen would not permit any conversation on that matter.

In the mean time, preparations were made for the baptism of the young prince; to assist at which the queen left Craigmillar and went to Stirling. The ceremony was performed on the 17th of December 1566. After the baptismal rites were performed, the name and titles of the prince were three times proclaimed by the heralds to the sound of trumpets. He was called and designed, Charles James, James Charles, prince and steward of Scotland, duke of Rothesay, earl of Carrick, lord of the Isles, and baron of Renfrew. Amidst the scenes of joy displayed on this occasion, the king showed his folly more than he had ever done. As Elizabeth did not mean to acknowledge him in his sovereign capacity, it was consistent neither with the dignity of the queen, nor his own, that he should be present at the baptism. He did not indeed present himself either at the ceremony or the entertainments and masquerades with which it was accompanied. At this juncture, however, though he had often kept at a greater distance before, he took up his residence at Stirling, as if he meant to offend the queen, and to expose their quarrels to the world. Du Croc, who was inclined to be favourable to him, was so struck with the impropriety of his behaviour, that he affected to have instructions from France to avoid all intercourse with him: and when the king proposed to pay him a visit, he took the liberty of informing him, that there were two passages in his chamber; and that if his majesty should enter by the one, he should be constrained to go out by the other.

699 Absurd behaviour of the king.

An. 1567.

While he resided at Stirling, the king confined himself chiefly to his chamber. His strange behaviour to the queen did not give the public any favourable idea of him; and as the earl of Murray and his faction took care to augment the general odium, no court was paid to him by foreign ambassadors. His situation, therefore, was exceedingly uncomfortable; but though he must have been conscious of his folly and imprudence, he did not alter his conduct. In a sullen humour he left Stirling, and proceeded to Glasgow. Here he fell sick,

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700 He falls sick,

sick, with such symptoms as seemed to indicate poison. He was tormented with violent pains, and his body was covered over with pustules of a bluish colour; so that his death was daily expected. Mary did not repay his coldness to her by negligence. She set out immediately for Glasgow, and waited on him with all the assiduity of an affectionate wife, until he recovered: after which, she returned with him to Edinburgh; and as the low situation of the palace of Holyroodhouse was thought to render it unhealthy, the king was lodged in a house which had been appointed for the superior of the church, called *St Mary's in the Fields*. This house stood on a high ground, and in a salubrious air; and here she staid with him some days.—

701 and is murdered.

Here the conspirators thought proper to finish their plot in the most execrable manner. On the 10th of February 1567, about two o'clock in the morning, the house where the king resided was blown up by gunpowder. The explosion alarming the inhabitants, excited a general curiosity, and brought multitudes to the place whence it proceeded. The king was found dead and naked in an adjoining field, with a servant who used to sleep in the same apartment with him. On neither was there any mark of fire or other external injury.

The queen was in the palace of Holyroodhouse, taking the diversion of a masked ball, which was given to honour the marriage of a favourite domestic, when the news of the king's death was brought to her. She showed the utmost grief, and appeared exasperated to the last degree against the perpetrators of a deed at once so shocking and barbarous. The most express and peremptory orders were given to inquire after the perpetrators by every possible method. A proclamation was issued by the privy-council, assuring the people, that the queen and nobility would leave nothing undone to discover the murderers of the king. It offered the sum of 2000*l.* and an annuity for life, to any person who should give information of the devisers, counsellors, and perpetrators of the murder; and it held out this reward, and the promise of a full pardon, to the conspirator who should make a free confession of his own guilt, and that of the confederates. On the fourth day after this proclamation was published, a placard was affixed to the gate of the city prison, affirming that the earl of Bothwel, James Balfour, David Chalmers, and black John Spence, were the murderers. No name, however, was subscribed to this intelligence, nor was any demand made for the proffered reward; so that it was difficult to know whether this advertisement had been dictated by a spirit of calumny or the love of justice.

702 Attempts to discover the murderers.

703 Strong presumption of the guilt of the earl of Murray.

In the mean time, the earl of Murray conducted himself with his usual circumspection and artifice. On a pretence that his wife was dangerously sick at his castle in Fife, he, the day before the murder, obtained the queen's permission to pay her a visit. By this means he proposed to prevent all suspicion whatever of his guilt. He was so full, however, of the intended project, that while he was proceeding on his journey, he observed to the person who accompanied him, "This night, before morning, the lord Darnley shall lose his life." When the blow was struck, he returned to Edinburgh to carry on his practices. Among foreign nations, the domestic disputes of the queen and her husband being fully known, it was with the greater ease that reports could be propagated to her disadvantage. Letters were despatched to France, expressing, in fervent terms, her participation in the murder. In England, the ministers and courtiers of Elizabeth could not flatter that princess more agreeably, than by industriously detracting from the honour and the virtue of the Scottish queen. Within her own dominions a similar spirit of outrage exerted itself, and not without success. As her reconciliation with her husband could not be unknown to her own subjects, it was regarded as dissimulation and treachery. The Protestant clergy, who were her most determined enemies, possessed a leading direction among the populace; and they were the friends and the partizans of the earl of Murray. Open declamations from the pulpit were made against Bothwel, and strong insinuations and biting surmises were thrown out against the queen. Papers were dispersed, making her a party with Bothwel in the murder. Every art was employed to provoke the frenzy of the people. Voices, interrupting the silence of the night, proclaimed the infamy of Bothwel; and portraits of the regicides were circulated over the kingdom. (s)

704 He accuses the queen.

The queen's determination, however, to scrutinize the

(s) In the article MARY *Queen of Scotland*, we have stated at considerable length the arguments for and against the participation in the murder of Darnley, of which Mary has been accused. As we have concluded that article with the arguments brought by one of her ablest accusers, justice and impartiality require that we should embrace this only opportunity of presenting our readers with the arguments in favour of the queen, brought forward by her most recent defender Mr Chalmers. "Mary herself (says Mr Chalmers, Caledonia, vol. i. p. 850.) seems to have been the only person of any consequence who was unacquainted with a design which was attended with such mighty consequence; yet it has been a question of debate, from that age to the present, whether Mary had been an accomplice in the murder of Darnley her husband. The prejudice of the late Lord Orford led him to say, that a plea of such length serves rather to confirm than weaken the evidence for the fact. But, it had been an observation full as just, as well as logical, to have said that, since the criminations of 240 years have not proved her guilty, she ought to be fairly deemed innocent. Party has, however, entered into this question, with its usual unfairness; and it is supposed that she ought to be presumed to be guilty, rather than innocent; it being more likely that a wife would murder her husband, and a queen act as an assassin, than that nobles who were accustomed to crimes, should perform this atrocious action, and cast the offence from themselves on an innocent person. The same inconsistency argues that, as she was educated in a corrupt court, she must have been corrupt; yet, her sonnet and her sorrow for the loss of Francis, her first husband, attested that her heart was yet uncontaminated with corruption; and the steadiness with which she adhered to her faith, amidst 20 years persecution, evinces that religion had its

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705 The queen determines to find out and punish the murderers.

the matter was unabated; and to the earl of Lenox, the king's father, she paid an attention which he could have expected from her only on an emergency of this kind. Having pressed her by letter to the most diligent inquiry after the regicides, she returned an answer so completely to his wishes, that he was fully convinced of the sincerity and rigour with which she intended to proceed against them: and he urged her to assemble the three estates, that their advice might direct the order and manner of their trial. She wrote to him, that an assembly of the estates was already proclaimed; and that it was her earnest and determined will and purpose, that no step should be neglected that could promote the advancement and execution of justice. Yielding to his anxieties, he addressed her again, intreating that the trial might not be delayed; observing, that it was not a matter of parliamentary inquiry; advising that it would be more proper to proceed with the greatest expedition; and urging her to commit to prison all the persons who had been named and described in the papers and placards which had been put in the public places of the city. The queen informed him, that although she had thought it expedient to call a meeting of parliament at this juncture, it was not her intention that the proceedings against the regicides should be delayed till it was actually assembled. As to the placards and papers to which he alluded, they were so numerous and contradictory, that she could not well determine on which to act; but if he would condescend to mention the names which, in his opinion, were most suspicious, she would instantly command that those steps should be taken which the laws directed and authorized. He named the earl of Bothwel, James Balfour, David Chalmers, black John Spence, Francis Sebastian, John de Burdeaux, and Joseph the brother of David Rizzio; and assured her majesty, that his suspicions of these persons were weighty and strong. In reply to his information, Mary gave him her solemn promise, that the persons he had named should undergo their trial in conformity to the laws, and that they should be punished according to the measure of their guilt: and she invited him to leave his retirement immediately, and meet her at court, that he might witness the proceedings against them, and the zeal with which she was animated to perform the part that became her.

706 Lenox accuses several persons,

While the queen carried on this correspondence with the earl of Lenox, she resided partly at the palace of the lord Seton, at the distance of a few miles from the capital, and partly at Holyroodhouse. By the time that she sent her invitation to him, she was residing in the capital. She delayed not to confer with her counsellors, and to lay before them the letters of the earl of Lenox. Bothwel was earnest in his protestations of innocence; and he even expressed his wish for a trial, that he might establish his integrity. No facts indicated his guilt; there had appeared no accuser but the earl of Lenox; and no witnesses had been found who could establish his criminality. Her privy-council seemed to her to be firmly persuaded that he was suffering under the malice of defamation. Murray, Morton, and Lethington, whatever their private machinations might be, were publicly his most strenuous defenders; and they explained the behaviour of the earl of Lenox to be the effect of hatred and jealousy against a nobleman who had outrun him so far in the career of ambition. But though all the arts of Murray and Bothwell, Morton and Lethington, were exerted to the utmost to mislead the queen, they were not able to withhold her from adopting the conduct which was the most proper and the most honourable to her. It was her own ardent desire that the regicides should be punished; she had given her solemn promise to the earl of Lenox, that the persons whom he suspected should

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its proper influence upon her soul. Hitherto, in this argument, no positive evidence has been adduced to prove her guilt; and therefore she ought to be acquitted as innocent. But at length certain *letters*, *sonnets*, and *contracts* between Mary and Bothwel, have been introduced as proofs of a guilty intercourse, rather than a direct participation in the crime; and those *letters*, *sonnets*, and *contracts*, were first produced by the earl of Morton, the queen's chancellor for life, who pretended to have found them in the custody of Dalgliesh, a servant of Bothwel. Yet this wretched magistrate had committed murder and treason at the assassination of Rizzio; he knew of the design to assassinate Darnley, yet he concealed it, and was thereby guilty of misprision; he knew of the crime, and was of course a participant, for which he was brought to the scaffold, where he acknowledged his crimes: now, this convicted criminal would not be admitted as a witness in any court of justice within Great Britain; and the production of such documents by such a wretch at such a time, casts strong suspicion on such papers, which were contaminated by his guilty touch. When those suspicious epistles were first introduced into the privy-council, they appeared, as the register asserts, to have been written and subscribed by her own hand, and sent to James Earl of Bothwel. When those *precie letters* were first brought into the Scottish parliament, they appear only to have been healie written with her own hand, as the record evinces, and not subscribed by her. When those dubious letters were first produced before the commissioners at York, for judging of the proofs of her guilt, they seem to have been superscribed to Bothwel; yet, they afterwards appeared before Elizabeth's commissioners at Westminster, without any superscription to any man; and those letters finally appear to have been neither subscribed by Mary, nor superscribed to Bothwel. When those letters were first produced before the privy-council of Scotland, they were written in the Scottish language; so they appeared to the commissioners at York; but when they were produced to the commissioners at Westminster, they were written in French. The whole thus appears to have been a *juggle* of state, to cozen the people into obedience. The sonnets and contracts have been equally convicted, by their own contents, of forgery. I have read the whole controversy on the genuineness or forgery of those documents; I have ransacked the Paper office for information on this interesting subject, and there does not appear to me to be a tittle of evidence, exclusive of those despicable forgeries, to prove that Mary Stuart had any knowledge of the murder of her husband."

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should be prosecuted; and amidst all the appearances in favour of Bothwel, and all the influence employed to serve him, it is to be regarded as a striking proof of her honour, vigour, and ability, that she could accomplish this measure. An order of the privy-council was accordingly made, which directed, that the earl of Bothwel, and all the persons named by Lenox, should be brought to trial for the murder of the king, and that the laws of the land should be carried into execution. The 12th of April was appointed for the trial. A general invitation was given to all persons to prefer their accusations. The earl of Lenox was formally cited to do himself justice, by appearing in the high court of justiciary, and by coming forward to make known the guilt of the culprits.

707 and is invited to prove his accusations.

In the mean time, it was proper to repress that spirit of outrage which had manifested itself against the queen. No discoveries, however, were made, except against James Murray, brother to Sir William Murray of Tullibardin, who at different times had published placards injurious to her. He was charged to appear before the privy-council: but refusing to obey its citation, it was made a capital offence for any commander of a vessel to convey him out of the kingdom; and the resolution was taken to punish him with an exemplary severity. Effecting his escape, however, he avoided the punishment due to his repeated and detestable acts of calumny and treason.

The day for the trial of Bothwel approached. The conspirators, notwithstanding their power, were not without apprehensions. Their preparations, however, for their safety had been anxious; and among other practices, they neglected not to attempt to infuse a panic into the earl of Lenox. They were favoured by his consciousness of his unpopularity and his want of strength, by his timidity and his spirit of jealousy. Suspicions of the queen's guilt were insinuated; and the dangers to which he might be exposed by insisting on the trial were placed before him in the strongest colours. He was sensible of her aversion to him; and his weakness and the sovereign authority were contrasted. His friends concurred with his enemies to intimidate him, from the spirit of flattery, or from a real belief that his situation was critical. By the time he reached Stirling on his way to Edinburgh, his fears predominated. He made a full stop. He was no longer in haste to proceed against the regicides. He addressed a letter to the queen, in which he said he had fallen into such sickness, that he could not travel; and he affirmed, that he had not time to prepare for the trial and to assemble his friends. He complained, too, that Bothwel and his accomplices had not been committed to custody; he insisted, that this step should be taken; and he requested, that a more distant day might be appointed for the trial. After the lengths to which matters had been carried, this conduct was most improper; and it is only to be accounted for from terror or caprice. His indisposition was affected; he had been invited by Mary to wait on her at Edinburgh at an early period, to concert his measures; and the delay he asked was contradictory to his former intreaties. After the invitation sent to him, he might have relied with safety on the protection of the queen, without any gathering of his friends; from the time of her private intimation to him, and of the legal citations of her officers, there had passed a period more than sufficient for the purpose of calling them together; and indeed to suppose that there was any necessity for their assistance, was an insult to government, and a matter of high indecency. There was more justice in the complaint, that the earl of Bothwel and his accomplices had not been taken into custody; and yet even in this peculiarity he was to blame in a great degree. For he had not observed the precaution of that previous display of evidence, known in the Scottish law under the term of a precognition, which is common in all grosser offences, and which the weighty circumstances of the present case rendered so necessary as a foundation for the confinement and conviction of the criminals.

708 He is intimidated,

709 and wishes to defer the trial;

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710 but his petition is refused.

An application for the delay of a trial so important, on the night immediately preceding the day stated for it, and reciting inconclusive reasons, could not with propriety be attended to. The privy-council refused the demand of the earl of Lenox. The court of justiciary was assembled. The earl of Argyle acted in his character of lord high justiciary; and was aided by four assessors, Robert Pitcairn, commendator of Dunfermline, and the lord Lindsay, with Mr James Macgill and Mr Henry Balnaves, two lords of session. The indictment was read, and the earls of Bothwel and Lenox were called on; the one as the defender, the other as the accuser. Bothwel, who had come to court with an attendance of his vassals, and a band of mercenary soldiers, did not fail to present himself: but Lenox appeared only by his servant Robert Cunnyngham; who, after apologizing for his absence, from the shortness of the time, and the want of the presence of his friends, desired that a new day might be appointed for the trial; and protested, that if the jury should now enter on the business, they should incur the guilt of a wilful error, and their verdict be of no force or authority.

This remonstrance and protestation did not appear to the court of sufficient importance to interrupt the trial. They paid a greater respect to the letters of the earl of Lenox to the queen insisting on an immediate prosecution, and to the consequent order of the privy-council. The jury, who consisted of men of rank and condition, after considering and reasoning on the indictment for a considerable time, were unanimous in acquiting Bothwel of all share and knowledge of the king's murder. The machinations however of Morton, which we have mentioned in the life of MARY, were so apparent, that the earl of Caithness, the chancellor of the assize, made a declaration in their name and his own, that no wilful error ought to be imputed to them for their verdict; no proof, vouchers, or evidence, to confirm or support the criminal charge having been submitted to them. At the same time, he offered a protestation for himself, that there was a mistake in the indictment, the 9th day of February instead of the 10th being expressed in it as the date of the murder. It is not to be doubted, that this flaw in the indictment was a matter of design, and with a view to the advantage of Bothwel, if the earl of Lenox had made his appearance against him. And it has been remarked as most indecent and suspicious, that soldiers in arms should have accompanied him to the court of justice; that during the trial, the earl of Morton stood by his side to give him countenance and to assist him; and that the four assessors to the chief justiciary were warm and strenuous friends to the earl of Murray.

711 Bothwel acquitted.

Immediately

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Immediately after his trial, Bothwel placed a writing in a conspicuous place, subscribed by him, challenging to single combat, any person of equal rank with himself, who should dare to affirm that he was guilty of the king's murder. To this challenge an answer was published, in which the defiance was accepted, on the condition that security should be given for a fair and equal conflict: but no name being subscribed to this paper, it was not understood to correspond with the law of arms; and of consequence no step was taken for the fighting of the duel. Two days after, parliament met, and there the party of Bothwel appeared equally formidable. The verdict in his favour was allowed to be true and just. He was continued in his high offices; and obtained a parliamentary ratification of the place of keeper of Dunbar castle, with the estates connected with it; and other favours were conferred on Murray, with the rest of the nobles suspected as accomplices in the murder.

712 He aspires at a marriage with the queen.

A very short time after the final acquittal of Bothwel, he began to give a greater scope to his ambition, and conceived hopes of gaining the queen in marriage. It has been already remarked, that he had insidiously endeavoured to gain her affection during the lifetime of her husband; but though he might have succeeded in this, the recent death of the king in such a shocking manner, and the strong suspicions which must unavoidably still rest on him, notwithstanding the trial he had undergone, necessarily prevented him from making his addresses to her openly. He therefore endeavoured to gain the nobility over to his side; which having done one by one, by means of great promises, he invited them to an entertainment, where they agreed to ratify a deed pointing him out to the queen as a person worthy of her hand, and expressing their resolute determination to support him in his pretensions. This extraordinary bond was accordingly executed; and Murray's name was the first in the list of subscribers, in order to decoy others to sign after him; but that he might appear innocent of what he knew was to follow, he had, before any use was made of the bond, asked and obtained the queen's permission to go to France. In his way thither he visited the court of Elizabeth, where he did not fail to confirm all the reports which had arisen to the disadvantage of Mary; and he now circulated the intelligence that she was soon to be married to Bothwel. Her partisans in England were exceedingly alarmed; and even Queen Elizabeth herself addressed a letter to her, in which she cautioned her not to afford such a mischievous handle to the malice of her enemies.

713 Is recommended by the nobility as a proper husband for her.

714 Schemes of the earl of Murray to hurt the queen.

715 Bothwel carries her off to Dunbar.

Mary, on the dissolution of parliament, had gone to Stirling to visit the young prince. Bothwel, armed with the bond of the nobles, assembled 1000 horse, under the pretence of protecting the borders, of which he was the warden; and meeting her on her return to her capital, dismissed her attendants, and carried her to his castle of Dunbar. The arts which he used there to effect the accomplishment of his wishes we have mentioned under another article, (see MARY). But having been married only six months before to Lady Jane Gordon, sister to the earl of Huntly, it was necessary to procure a divorce before he could marry the queen. This was easily obtained. The parties were cousins within the prohibited degrees, and had not obtained a dispensation from Rome. Their marriage, therefore in the opinion of the queen and her Catholic subjects, was illicit, and a profane mockery of the sacrament of the church. The husband had also been unfaithful; so that two actions of divorce were instituted. The lady commenced a suit against him in the court of the commissaries, charging him as guilty of adultery with one of her maids. The earl himself brought a suit against his wife before the court of the archbishop of St Andrew's, on the plea of consanguinity. By both courts their marriage was declared to be void; and thus two sentences of divorce were pronounced.

716 Is divorced from his wife.

Bothwel now conducted the queen from Dunbar to her capital. But instead of attending her to her palace of Holyroodhouse, his jealousy and apprehensions induced him to lodge her in the castle of Edinburgh, where he could hold her in security against any attempt of his enemies. To give satisfaction, however, to her people, and to convince them that she was no longer a prisoner, a public declaration on her part appeared to be a measure of expediency. She presented herself, therefore, in the court of session; the lords chancellor and president, the judges, and other persons of distinction, being present. After observing that some stop had been put to the administration of justice on account of her being detained at Dunbar against her will by the lord Bothwel, she declared, that though she had been highly offended with the outrage offered to her, she was yet inclined to forget it. His courteousness, the sense she entertained of his past services to the state, and the hope with which she was impressed of his zeal and activity for the future, compelled her to give him and his accomplices in her imprisonment a full and complete pardon. She at the same time desired them to take notice, that she was now at liberty; and that she proposed, in consideration of his merits, to take an early opportunity of promoting him to new and distinguished honours.

717 Banns of the marriage proclaimed.

It was understood that the queen was immediately to advance him to be her husband. The order was given for the proclamation of the banns; and Mr John Craig, one of the ministers of Edinburgh, was desired to perform this ceremony. But though the order was subscribed by the queen, he absolutely refused his compliance without the authority of the church. The brethren, after long reasonings, granted him permission to discharge this duty. His scruples and delicacy were not yet removed. He protested, that, in obeying their desire, he should be allowed to speak his own sentiments concerning the marriage, and that his publishing the banns should infer no obligation on him to officiate in the solemnity. In his congregation, accordingly, before a crowded audience, and in the presence of several noblemen and privy-councillors, he declared that the marriage of the queen and the earl of Bothwel was unlawful, and that he was prepared to give his reasons for this opinion to the parties themselves. He added, that if leave to do this was denied him, he would either abstain altogether from proclaiming the banns, or take the liberty, after proclaiming them, to inform his people of the causes of his disapprobation of the marriage. He stated, that the church had prohibited the marriage of persons separated for adultery; and that the divorce between him and his wife must have been owing to collusion; since the sentence had been given with precipitation, and since his new contract was so sudden; and he objected to him the abduction and ravishment of the queen, and his suspicion of his guilt of the king's murder.

718 Fernando of Mr John Craig.

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der. This bold language drew no reply from Bothwel that was satisfactory to Mr Craig, or that could intimidate him. He proclaimed in his church the banns of marriage; but he told the congregation, that he discharged the suggestions of his conscience in pronouncing it to be a detestable and scandalous engagement. He expressed the sorrow he felt for the conduct of the nobility, who seemed to approve it from their flattery or silence; and addressing himself to the faithful, he besought them to pray to the Almighty that he would turn a resolution intended against law, reason, and religion, into a comfort and benefit to the church and the kingdom. These freedoms were too great to pass unnoticed. Mr Craig was ordered again to attend the privy-council; and he was reprimanded with severity for exceeding the bounds of his commission. He had the courage to defend himself. His commission, he said, was founded in the word of God, positive law, and natural reason; and on the foundation of these topics he was about to prove that the marriage must be universally odious, when the earl of Bothwel commanded him to be silent. The privy-council, struck with the vigour of the man, and apprehensive of the public discontents, did not dare to inflict any punishment on him; and this victory over Bothwel, while it heightened all the suspicions against him, served to encourage the enemies of the queen, and to undermine the respect of her subjects.

719 The marriage celebrated.

Mary, before she gave her hand to Bothwel, created him duke of Orkney. The ceremony was performed in a private manner, after the rules of the Popish church; but, to gratify the people, it was likewise solemnized publicly, according to the Protestant rites, by Adam Bothwel bishop of Orkney, an ecclesiastic who had renounced the episcopal order for the reformation. It was celebrated with little pomp and festivity. Many of the nobles had retired to their seats in the country; and those who attended were thoughtful and sad. Du Croc, the French ambassador, sensible that the match would be displeasing to his court, refused to give his countenance to the solemnity. There were no acclamations of the common people. Mary herself was not inconscious of the imprudence of the choice she had made, and looked back with surprise and sorrow to the train of circumstances which had conducted her to this fatal event. Forsaken by her nobles, and imprisoned at Dunbar, she was in so perilous a situation that no remedy could save her honour but death. Her marriage was the immediate and necessary consequence of that situation. (T) It was the point for which her enemies had laboured with a wicked and relentless policy.

Mary was unfortunate in her second marriage, but much more so in her third. Bothwel had neither talents for business nor affection for his wife. Ambitious and jealous to the last degree, he sought only to establish himself in power, while his fears and jealousies made him take the most improper means. The marriage had already thrown the nation into a ferment; and the least improper exercise of power, or indeed an appearance of it, even on the part of the queen, would have been sufficient to ruin them both for ever. Perhaps the only thing which at this juncture could have pacified the people, would have been the total abolition of Popery, which they had often required. But this was not thought of. Instead of taking any step to please the people. Bothwell endeavoured to force the earl of Mar to deliver up the young prince to his custody.—This was sufficient to rekindle the flame which had hitherto been smothered, and make it burst out with all its violence. It was universally believed that Bothwel, who had been the murderer of the father, designed also to take away the life of the son; and the queen was thought to participate in all his crimes. The earl of Murray now took advantage of the queen's unfortunate situation, to aggrandize himself and effect her ruin. After having visited the English court, he proceeded to France, where he assiduously disseminated all the reports against the queen which were injurious to her reputation; and where, without being exposed to suspicion, he was able to maintain a close correspondence with his friends Morton and Lethington, and to inspirit their machinations. His associates, true to his ambition and their own, had promoted all the schemes of Bothwel on the queen with a power and influence which insured their success. In confederacy with the earl of Murray, they had conspired with him to murder the king. Assisted with the weight of the earl of Murray, they had managed his trial, and promoted the verdict by which he was acquitted. By the same arts, and with the same views, they had joined with him to procure the bond of the nobles recommending him to the queen as a husband, asserting his integrity and innocence, recounting his noble qualities, expressing an unalterable resolution to support the marriage against every opposer and adversary, and recording a wish that a defection from its objects and purposes should be branded with everlasting infamy, and held out as a most faithless and perjured treachery. When the end, however, was accomplished for which they had been so zealous, and when the marriage of the queen was actually celebrated, they laid aside the pretence of friendship, and were in haste to entitle themselves to the ignominy which they had invited to fall on them. The murder of the king, the guilt of Bothwell, his acquittal, his divorce, and his marriage, became the topics of their complaints and declamation. On the foundation of this hated marriage, they even ventured privately to infer the privity of the queen

720 Bothwel attempts to get the young prince into his power.

721 Murray calumniates the queen.

(T) "The queen (says Melvil) could not but marry him; seeing he had ravished her and lain with her against her will." Memoirs, p. 159. In the following passage, from a writer of great authority, in our history, this topic is touched with no less exactness, but with greater delicacy. "After Mary had remained a fortnight under the power of a daring profligate adventurer," says Lord Hailes, "few foreign princes would have solicited her hand. Some of her subjects might still have sought that honour; but her compliance would have been humiliating beyond measure. It would have left her at the mercy of a capricious husband; it would have exposed her to the disgrace of being reproached, in some sullen hour, for the adventure at Dunbar. Mary was so situated, at this critical period, that she was reduced to this horrid alternative, either to remain in a friendless and hazardous celibacy, or to yield her hand to Bothwel." Remarks on the History of Scotland, p. 204.

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queen to all his iniquitous transactions; and this step seemed doubtless, to the mass of her own subjects and to more distant observers, a strong confirmation of all the former suspicions to her shame which had been circulated with so much artifice. Their imputations and devices excited against her, both at home and abroad, the most indignant and humiliating odium. Amidst the ruins of her fame, they thought of burying for ever her tranquillity and peace; and in the convulsions which they had meditated, they were already anticipating the downfal of Bothwel, and snatching at the crown that tottered on her head.

722 A confederacy formed against Bothwel.

But while this cabal were prosecuting their private ends, several noblemen, not less remarkable for their virtue than their rank, were eager to vindicate the national integrity and honour. The earl of Athol, on the king's murder, had retired from court, and was waiting for a proper season to take revenge on the regicides. The earl of Mar, uneasy under the charge of the young prince, was solicitous to make himself strong, that he might guard him from injury. Motives so patriotic and honourable drew applause and partisans. It was sufficient to mention them. By private conference and debate, an association was insensibly formed to punish the murderers of the king, and to protect the person of the prince. Morton and Lethington encouraged and promoted a combination from which they might derive so much advantage. A convention was accordingly appointed at Stirling, for the purpose of consulting on the measures which it was most expedient to pursue. They agreed to take an early opportunity of appearing in the field; and when they separated, it was to collect their retainers, and to inspirit their passions.

Of this confederacy, the leading men were the earls of Argyle, Athol, Morton, Mar, and Glencairn; the lords Hume, Sempil, and Lindsay; the barons Kirkaldy of Grange, Murray of Tullibardin, and Mairland of Lethington. The earl of Bothwel was sensible, that if he was to sit on a throne, he must wade to it through blood. By his advice, two proclamations were issued in the name of the queen, under pretence of suppressing insurrections and depredations on the borders. By the former, she called together in arms, on an early day, the earls, barons, and freeholders, of the districts of Forfar and Perth, Strathern and Menteith, Clackmannan, Kinross, and Fife. By the latter she charged the greater and lesser baronage, with all the inferior proprietors of the shires of Linlithgow and Edinburgh, and the constabulary of Haddington and Berwick, to prepare immediately for war, and to keep themselves in readiness to march at her order. These military preparations admonished the association to be firm and active, and added to the public inquietudes and discontents. The rumours against the queen were most violent and loud. It was said, that she meant to overturn the constitution and the laws; that she had been careless of the health of her son, and was altogether indifferent about his preservation; that she had separated herself from the counsels and assistance of her nobles; and that she wished to make her whim or discretion the only rule of her government. Agitated with the hazardous state of her affairs, she published a new proclamation, in which she employed herself to refute these accusations; and in which she took the opportunity of expressing in a very forcible manner, not only her attachment to her people and the laws, but the fond affection which she bore to the prince, whom she considered as the chief joy of her life, and without whom all her days would be comfortless.

723 The queen prepares for war;

The declarations of the queen were treated with scorn. The nobles, abounding in vassals, and having the hearts of the people, were soon in a situation to take the field. They were advancing to the capital. The royal army was not yet assembled; and the queen and Bothwel suspected that the castle of Edinburgh would shut its gates upon them. The fidelity of Sir James Balfour the deputy-governor had been shaken by the practices of the earl of Mar and Sir James Melvil. Mary left her palace of Holyroodhouse, and was conducted to Borthwick castle. The associated lords, informed of her flight, took the road to this fortress with 2000 horse. The lord Hume, by a rapid march, presented himself before it with the division under his command: but being unable to guard all its avenues, the queen and Bothwel effected their escape to Dunbar; where the strength of the fortifications gave them a full security against a surprise.

724 But is obliged to fly to Dunbar.

On this second disappointment, the nobles resolved to enter Edinburgh, and to augment their strength by new partisans. The earl of Huntly and the lord Boyd were here on the side of the queen, with the archbishop of St Andrew's, the bishop of Ross, and the abbot of Kilwinning. They endeavoured to animate the inhabitants to defend their town and the cause of their sovereign. But the tide of popularity was favourable to the confederated lords. The magistrates ordered the gates of the city to be shut; but no farther resistance was intended. The lords, forcing St Mary's port, found an easy admittance, and took possession of the capital. The earl of Huntly and the queen's friends fled to the castle, to Sir James Balfour, who had been the confidant of Bothwel, and who agreed to protect them, although he was now concluding a treaty with the insurgents.

725 Proclamation by the rebellious nobles.

The associated lords now formed themselves into a council, and circulated a proclamation. By this paper they declared, that the queen, being detained in captivity, was able neither to govern her realm, nor to command a proper trial to be taken of the king's murder. In an emergency so pressing they had not despaired of their country; but were determined to deliver the queen from bondage, to protect the person of the prince, to revenge the murder of the king, and to vindicate the nation from the infamy which it had hitherto suffered through the impunity of the regicides. They therefore commanded in general all the subjects of Scotland, and the burgesses and inhabitants of Edinburgh in particular, to take part with them, and to join in the advancement of purposes so beneficial and salutary. The day after they published this proclamation, they issued another in terms that were stronger and more resolute. They definitively expressed their persuasion of Bothwel's guilt in the rape and seduction of the queen, and in his perpetration of the king's murder, in order to accomplish his marriage. They inculcated it as their firm opinion, that Bothwel had now formed the design of murdering the young prince, and that he was collecting troops with this view. Addressing themselves, therefore, to all the subjects of the realm, whether they resided in counties

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or in boroughs, they invited them to come forward to their standard; and desired them to remember, that all persons who should presume to disobey them would be treated as enemies and traitors.

Bothwel, in the mean time, was not inactive; and the proclamations of the queen had brought many of her vassals to her assistance. Four thousand combatants ranged themselves on her side. This force might augment as she approached to her capital; and Bothwel was impatient to put his fortunes to the issue of a battle. He left the strong castle of Dunbar, where the nobles were not prepared to assail him, and where he might have remained in safety till they dispersed; for their proclamations were not so successful as they had expected: their provisions and stores were scanty; and the zeal of the common people, unsupported by prosperity, would soon have abated. Imprudent precipitation served them in a most effectual manner. When the queen had reached Gladsmuir, she ordered a manifesto to be read to her army, and to be circulated among her subjects. By this paper, she replied to the proclamations of the confederated nobles, and charged them with treachery and rebellion. She treated their reasons of hostility as mere pretences, and as inventions which could not bear to be examined. As to the king's murder, she protested, that she herself was fully determined to revenge it, if she could be so fortunate as to discover its perpetrators. With regard to the bondage from which they were so desirous to relieve her, she observed, that it was a falsehood so notorious, that the simplest of her subjects could confute it; for her marriage had been celebrated in a public manner, and the nobles could scarcely have forgotten that they had subscribed a bond recommending Bothwel to be her husband. With regard to the industrious defamations of this nobleman, it was urged, that he had discovered the utmost solicitude to establish his innocence. He had invited a scrutiny into his guilt; the justice of his country had absolved him; the three estates assembled in parliament were satisfied with the proceedings of his judges and jury; and he had offered to maintain his quarrel against any person whatever who was equal to him in rank and of an honest reputation. The nobles, she said, to give a fair appearance to their treason, pretended, that Bothwel had schemed the destruction of the prince, and that they were in arms to protect him. The prince, however, was actually in their own custody; the use they made of him was that of a cover to their perfidiousness; and the real purposes by which they were animated, were the overthrow of her greatness, the ruin of her posterity, and the usurpation of the royal authority. She therefore entreated the aid of her faithful subjects; and as the prize of their valorous service, she held out to them the estates and possessions of the rebels.

726 Manifesto by the queen.

The associated nobles, pleased with the approach of the queen, put themselves in motion. In the city of Edinburgh they had received an addition to their force; and it happened that the Scottish officer who commanded the companies, which, in this period, the king of Denmark was permitted to enlist in Scotland, had been gained to assist them. He had just completed his levies; and he turned them against the queen. The nobles, after advancing to Musselburgh, refreshed their troops. Intelligence was brought that the queen was on her march. The two armies were nearly equal in numbers; but the preference, in point of valour and discipline, belonged decisively to the soldiers of the nobles. The queen posted herself on the top of Carberry hill. The lords, taking a circuit to humour the ground, seemed to be retreating to Dalkeith; but, wheeling about, they approached to give her battle. They were ranged in two divisions. The one was commanded by the earl of Morton and the lord Hume; the other by the earls of Athol, Mar, and Glencairn, with the lords Lindsay, Ruthven, Sempil, and Sanquhar. Bothwel was the leader of the royal forces; and the lords Seton, Yester, and Borthwick, served under him.

727 The two armies approach each other.

It was not without apprehensions that Mary surveyed the formidable appearance of her enemies. Du Croc, the French ambassador, hastened to interpose his good offices, and to attempt an accommodation. He assured the nobles of the peaceful inclinations of the queen: and that the generosity of her nature disposed her not only to forgive their present insurrection, but to forget all their former transgressions. The earl of Morton informed him, that they had not armed themselves against the queen, but against the murderer of the late king; and that if she would surrender him up to them, or command him to leave her, they would consent to return to their duty. The earl of Glencairn desired him to observe, that the extremity to which they had proceeded might have instructed him that they meant not to ask pardon for any offences they had committed, but that they were resolved to take cognisance of injuries which had provoked their displeasure. This aspiring language confounded Du Croc, who had been accustomed to the worshipful submissions which are paid to a despot. He conceived that all negociation was fruitless, and withdrew from the field in the expectation that the sword would immediately give its law, and determine every difference.

728 Du Croc negociates with the rebels.

Mary was full of perturbation and distress. The state into which she had been brought by Bothwel did not fail to engage her serious reflection. It was with infinite regret that she considered the consequences of her situation at Dunbar. Nor had his behaviour since her marriage contributed to allay her inquietudes. The violence of his passions, his suspicions, and his guilt, had induced him to surround her with his creatures, and to treat her with insult and indignity. She had been almost constantly in tears. His demeanour, which was generally rude and indecent, was often savage and brutal. At different times his provocations were so insulting, that she had even attempted to arm her hand against her life, and was desirous of relieving her wretchedness by spilling her blood. On this account, she was now encompassed with dangers. Her crown was in hazard. Under unhappy agitations, she rode through the ranks of her army, and found her soldiers dispirited. Whatever respect they might entertain for her, they had none for her husband. His own retainers and dependents only were willing to fight for him. He endeavoured to awaken the royal army to valour, by throwing down the gauntlet of defiance against any of his adversaries who should dare to encounter him. His challenge was instantly accepted by Kirkaldy of Grange, and by Murray of Tullibardin. He objected that they were not peers. The lord Lindsay discovered the greatest impatience to engage him, and his offer was admitted; but the queen interposing her prerogative, prohibited the

729 Bothwel challenges to single combat.

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the combat. All the pride and hopes of Bothwel sunk within him. His soldiers in small parties were secretly abandoning their standards. It was equally perilous to the queen to fight or to fly. The most prudent expedient for her was to capitulate. She desired to confer with Kirkaldy of Grange, who remonstrated to her against the guilt and wickedness of Bothwel, and counselled her to abandon him. She expressed her willingness to dismiss him on condition that the lords would acknowledge their allegiance and continue in it. Kirkaldy passed to the nobles, and received their authority to assure her that they would honour, serve, and obey her as their princess and sovereign. He communicated this intelligence to her. She advised Bothwel to provide for his safety by flight: and Kirkaldy admonished him not to neglect this opportunity of effecting his escape. Overwhelmed with shame, disappointment, terror, and remorse and despair, this miserable victim of ambition and guilt turned his eyes to her for the last time. To Kirkaldy of Grange she stretched out her hand: he kissed it; and taking the bridle of her horse, conducted her towards the nobles. They were approaching her with becoming reverence. She said to them, "I am come, my lords, to express my respect, and to conclude our agreement; I am ready to be instructed by the wisdom of your counsels; and I am confident that you will treat me as your sovereign." The earl of Morton, in the name of the confederacy, ratified their promises, and addressed her in these words: "Madam, you are here among us in your proper place; and we will pay to you as much honour, service, and obedience, as ever in any former period was offered by the nobility to the princes your predecessors."

730 He is obliged to fly.

731 Mary surrenders herself to the rebels.

732 By whom she is cruelly used.

This gleam of sunshine was soon overcast. She remained not many hours in the camp, till the common soldiers, instigated by her enemies, presumed to insult her with the most unseemly reproaches. They exclaimed indignantly against her as the murderer of her husband. They reviled her as a lewd adulteress in the most open manner, and in language the coarsest and most opprobrious. The nobility forgot their promises, and seemed to have neither honour nor humanity. She had changed one miserable scene for a distress that was deeper and more hopeless. They surrounded her with guards, and conducted her to her capital. She was carried along its streets, and shown to her people in captivity and sadness. She cried out to them to commiserate and protect her. They withheld their pity, and afforded her no protection. Even new insults were offered to her. The lowest of the populace, whom the declamations of the clergy had driven into rage and madness, vied with the soldiery in the licentious outrage of invective and execration. She besought Maitland to solicit the lords to repress the insupportable atrocity of her treatment. She conjured him to let them know, that she would submit herself implicitly to the determination of parliament. Her entreaties and her sufferings made no impression on the nobles. They continued the savage cruelty of their demeanour. She implored, as the last request she would prefer to them, that they would lead her to her palace. This consolation, too, was refused to her. They wished to accustom her subjects to behold her in disgrace, and to teach them to triumph over her misfortunes. In the most mortifying and afflicting hour she had ever experienced, oppressed with fatigue, and disfigured with dust and sorrow, they shut her up in the house of the lord provost: leaving her to revolve in her anxious and agitated mind the indignities she had already endured, and to suffer in anticipation the calamities they might yet inflict on her.

The malice of Morton and his adherents was still far from being gratified. In the morning, when the queen looked from the window of the apartment to which she had been confined, she perceived a white banner displayed in such a manner as to fix her attention. There was delineated on it the body of the late king stretched at the foot of a tree, and the prince on his knees before it, with a label from his mouth, containing this prayer, "Judge and revenge my cause, O Lord!" This abominable banner revived all the bitterness of her afflictions. The curiosity of the people drew them to a scene so new and so affecting. She exclaimed against the treachery of her nobles; and she begged the spectators to relieve her from their tyranny. The eventful story of the preceding day had thrown her capital into a ferment. The citizens of a better condition crowded to behold the degraded majesty of their sovereign. Her state of humiliation, so opposite to the grandeur from which she had fallen, moved them with compassion and sympathy. They heard her tale, and were filled with indignation. Her lamentations, her disorder, her beauty, all stimulated their ardour for her deliverance. It was announced to the nobles, that the tide of popular favour had turned towards the queen. They hastened to appear before her, and to assure her, with smiles and courtesy, that they were immediately to conduct her to her palace, and to reinstate her in her royalty. Imposing on her credulous nature, and that beautiful humanity which characterized her even in the most melancholy situations of her life, they prevailed with her to inform the people that she was pacified, and that she wished them to disperse. They separated in obedience to her desire. The nobles now conveyed her to Holyroodhouse. But nothing could be farther from their intentions than her re-establishment in liberty and grandeur. They held a council, in which they deliberated concerning the manner in which they ought to dispose of her. It was resolved, that she should be confined during her life in the fortress of Lochleven; and they subscribed an order for her commitment.

733 The common people take her part;

734 but by the advice of the nobles she dismisses them.

A resolution so sudden, so perfidious, and so tyrannical, filled Mary with the utmost astonishment, and drew from her the most bitter complaints and exclamations. Kirkaldy of Grange, perceiving with surprise the lengths to which the nobles had proceeded, felt his honour take the alarm for the part he had acted at their desire. He expostulated with them on their breach of trust, and censured the extreme rigour of the queen's treatment. They counselled him to rely on the integrity of their motives: spoke of her passion for Bothwel as most vehement; and insisted on the danger of intrusting her with power. He was not convinced by their speeches: and earnestly recommended lenient and moderate measures. Discreet admonitions, he said, could not fail of impressing her with a full sense of the hazards and inconveniences of an improper passion, and a little time would cure her of it. They assured him, that when it appeared that she detested Bothwel, and had

735 She is defended by Kirkaldy of Grange;

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736 But he is silenced by a forgery of the nobles.

had utterly abandoned his interests, they would think of kindness and moderation. But this, they urged, could scarcely be expected; for they had recently intercepted a letter from her to this nobleman, in which she expressed, in the strongest terms, the warmth of her love, and her fixed purpose never to forsake him (U). Kirkaldy was desired to peruse this letter; and he pressed them no longer with his remonstrances. The queen, in the mean time, sent a message to this generous soldier, complaining of the cruelty of her nobles, and reminding him that they had violated their engagements. He instantly addressed an answer to it, recounting the reproaches he had made to them; stating his advice; describing the surprise with which he had read her intercepted letter; and conjuring her to renounce and forget a most wicked and flagitious man, and, by this victory over herself, to regain the love and respect of her subjects. The device of a letter from her to Bothwel completed the amazement of the queen. So unprincipled a contempt of every thing that is most sacred, so barbarous a perseverance in perfidiousness and injustice, extinguished every sentiment of hope in her bosom. She conceived that she was doomed to inevitable destruction, and sunk under the pangs of unutterable anguish.

737 Mary confined in Lochleven castle.

The lords Ruthven and Lindsay arrived during this paroxysm of her distress, to inform her, that they were commanded to put in execution the order of her commitment. They charged her women to take from her all her ornaments and her royal attire. A mean dress was put on her; and in this disguise they conveyed her with precipitation to the prison appointed for her. The lords Seton, Yester, and Borthwick, endeavoured to rescue her, but failed in the attempt. She was delivered over to William Douglas the governor of the castle of Lochleven, who had married the mother of the earl of Murray, and was himself nearly related to the earl of Morton. See MARY.

738 The rebellious lords enter into a bond of association.

On the same day on which the nobles subscribed the order for the imprisonment of the queen, they entered into a bond of concurrence or confederacy. By this deed they bound themselves to the strenuous prosecution of their quarrel; and it detailed the purposes which they were to pursue. They proposed to punish the murderers of the king, to examine into the queen's rape, to dissolve her marriage, to preserve her from the bondage of Bothwel, to protect the person of the prince, and to restore justice to the realm. The sanction of a most solemn oath confirmed their reliance on each other; and in advancing their measures, they engaged to expose and employ their lives, kindred, and fortunes.

It is easy to see, notwithstanding all the pretended patriotism of the rebels, that nothing was farther from their intentions than to prosecute Bothwel and restore the queen to her dignity. They had already treated her in the vilest manner, and allowed Bothwel to escape when they might heave easily apprehended and brought him to trial. To exalt themselves was their only aim. Eleven days after the capitulation at Carberry hill, they held a convention, in which they very properly assumed the name of *lords of the secret council*, and issued a proclamation for apprehending Bothwel as the murderer of the king; offering a reward of 1000 crowns to any person who should bring him to Edinburgh. A search was made for the murderers of the king that very night in which the queen was confined in Lochleven castle. One Sebastian a Frenchman, and captain Blackader, were apprehended; and soon after James Edmonstone, John Blackader, and Mynart Fraser, were taken up and imprisoned. The people expected full and satisfactory proofs of the guilt of Bothwel, but were disappointed. The affirmation of the nobles, that they were possessed of evidence which could condemn him, appeared to be no better than an artifice. Sebastian found means to escape; the other persons were put to the torture and sustained it without making any confession that the nobles could publish. They were condemned, however, and executed, as being concerned in the murder. In their dying moments they protested their innocence. Sanguine hopes were entertained that Captain Blackader would reveal the whole secret at the place of execution, and a vast multitude of spectators were present. No information, however, could be derived from what he said with respect to the regicides; but while he so solemnly protested that his life was unjustly taken away, he averred it as his belief that the earls of Murray and Morton were the contrivers of the king's murder.

739 Several persons taken up on account of the king's murder.

740 But they make no confession.

741 Robberies and outrages of the confederated lords.

The lords of the secret council now proceeded to the greatest enormities. They robbed the palace of Holyroodhouse of its furniture and decorations; converted the queen's plate into coin; and possessed themselves of her jewels, which were of great value; and while the faction at large committed these acts of robbery, the earl

(U) "Mr Hume is candid enough to give up the authenticity of this letter; and indeed, so far as I have observed, there is not the slightest pretence of a reason for conceiving it to be genuine; (*Hist. of England*, vol. v. p. 120.) It was not mentioned by the earl of Morton and his adherents to Throgmorton, when Elizabeth interfered in the affairs of Scotland upon the imprisonment of the queen in the castle of Lochleven: a period of time when these statesmen were desirous to throw out every imputation to her prejudice, and when, in particular, they were abusing her with vehemence for her attachment to Bothwel; (*Keith*, p. 419.) Nor was it made use of by Murray before the English commissioners. Mary, in the condition to which the nobles had reduced her, could not well think of a step of this sort, although her attachment to Bothwel had been as strong as they were pleased to pronounce it For, not to speak of the greatness of her distress, she was guarded by them so strictly, as to make it vain for her to pretend to elude their vigilance In regard, too, to her love of Bothwel, it is not clear that it was ever real. While the king was alive, there are no traces of their improper intercourse. The affair of Dunbar was a criminal seduction. The arts of a profligate man overcame her. There was no sentiment of love upon either side. After her marriage, his rudeness extinguished in her altogether any remain of kindness and respect; and hence the coldness with which she parted with him." *Stuart's History of Scotland*, vol. i. p. 253. note.

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earl of Glencairn with solemn hypocrisy demolished the altar in the queen's chapel, and defaced and destroyed all its pictures and ornaments. These excessive outrages, however, lost them the favour of the people, and an association was formed in favour of the queen. The court of France, as soon as the news of Mary's imprisonment arrived, despatched M. de Villeroy to condole with her on her misfortunes: but the lords of the secret council would not admit him to see her, on which he immediately returned to his own country. The earl of Murray, however, was at this time in France; and to the promises of this ambitious and treacherous noble the king trusted, imagining him to be a steady friend to the unfortunate queen. Elizabeth also pretended friendship, and threatened the associated lords; but as they had every reason to doubt her sincerity, they paid no regard to her threats, and even refused to admit her ambassador to Mary's presence.

742 Mary compelled to sign a resignation of her crown, 24th July, 1567.

From all these appearances of friendship Mary neither did nor could derive any real assistance. On the 24th of July 1567, the lord Lindsay, whose imperious behaviour, says Dr Stuart, approached to insanity, was ordered by the lords to wait on the queen at Lochleven. He carried with him three deeds or instruments, and was instructed not to be sparing in rudeness and menaces in order to compel her to subscribe them. By the first, she was to resign her crown to her infant son; by the second, she appointed the earl of Murray regent of Scotland; and by the third, she constituted a council to direct the prince till this nobleman should arrive in Scotland, or on the event of his death or refusal of the office. On the part of the queen all resistance was vain. Sir Robert Melvil assured her, that her best friends were of opinion, that what she did by compulsion, and in a prison, could have no power to bind her; and of this she was also assured by Throgmorton, the English ambassador, in a letter which Sir Robert Melvil brought in the scabbard of his sword. Mary, therefore, forlorn and helpless, could not resist the barbarous rudeness with which Lindsay, pressed the subscription of the papers, though she would not read them. Five days after, the lords of the secret council met at Stirling, for the coronation of the young prince, and considered themselves as representing the three estates of the kingdom. A protestation was made in the name of the duke of Chatelherault, that this solemnity should neither prejudge his rights of succession nor those of the other princes of the blood. The young prince being presented to them, the lords Lindsay and Ruthven appeared, and in the name of the queen renounced in his favour her right and title to the crown, gave up the papers which she had subscribed, and surrendered the sword, sceptre, and royal crown. After the papers were read, the earls of Morton, Athol, Glencairn, Mar, and Menteith, with the master of Graham, the lord Hume, and Bothwel bishop of Orkney, received the queen's resignation in favour of her son in the name of the three estates. After this formality, the earl of Morton, bending his body, and laying his hand on the Scriptures, took the coronation-oath for the prince, engaging that he should rule according to the laws, and root out all heretics and enemies to the word of God. Adam Bothwel then anointed the prince king of Scotland; a ceremony with which John Knox was displeased, as believing it to be of Jewish invention. The prelate next delivered to him the sword and the sceptre, and finally put the crown on his head. In the procession to the castle from the church, where the inauguration was performed, and where John Knox preached the inauguration sermon, the earl of Athol carried the crown, Morton the sceptre, Glencairn the sword, and the earl of Mar carried the prince in his arms. These solemnities received no countenance from Elizabeth; and Throgmorton, by her express command, was not present at them.

743 Coronation of Jas. VI.

744 Disapproved by Elizabeth.

745 Murray returns from France.

Soon after this ceremony, the earl of Murray returned from France; and his presence gave such a strength and firmness to his faction, that very little opposition could be given by the partisans of Mary, who were unsettled and desponding for want of a leader. A short time after his arrival, this monstrous hypocrite and traitor waited on his distressed and insulted sovereign at Lochleven. His design was to get her to desire him to accept of the regency, which he otherwise pretended to decline. The queen, unsuspicious of the deepness of his arts, conscious of the gratitude he owed her, and trusting to his natural affection, and their tie of a common father, received him with a tender welcome. She was in haste to pour forth her soul to him; and with tears and lamentations related her condition and her sufferings. He heard her with attention: and turned occasionally his discourse to the topics which might lead her to open to him her mind without disguise in those situations in which he was most anxious to observe it. His eye and his penetration were fully employed; but her distress awakened not his tenderness. He seemed to be in suspense; and from the guardedness of his conversation she could gather neither hope nor fear. She begged him to be free with her, as he was her only friend. He yielded to her intreaties as if with pain and reluctance; and taking a comprehensive survey of her conduct, described it with all the severity that could affect her most. He could discover no apology for her misgovernment and disorders; and, with a mortifying plainness, he pressed on her conscience and her honour. At times she wept bitterly. Some errors she confessed; and against calumnies she warmly vindicated herself. But all she could urge in her behalf made no impression on him; and he spoke to her of the mercy of God as her chief refuge. She was torn with apprehensions, and nearly distracted with despair. He dropped some words of consolation; and after expressing an attachment to her interests, gave her his promise to employ all his consequence to secure her life. As to her liberty, he told her, that to achieve it, was beyond all his efforts; and that it was not good for her to desire it. Starting from her seat, she took him in her arms, and kissing him as her deliverer from the scaffold, solicited his immediate acceptance of the regency. He declared he had many reasons to refuse the regency. She implored and conjured him not to abandon her in the extremity of her wretchedness. There was no other method, she said, by which she herself could be saved, her son protected, and her realm rightly governed. He gave way to her anxiety and solicitations. She besought him to make the most unbounded use of her name and authority, desired him to keep for her the jewels that yet remained with her, and recommended it to him to get an early possession of all the forts of her kingdom. He now took his leave of

746 He pays a visit to the queen at Lochleven;

747 and induces her to press him to accept of the regency.

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of her; and, embracing anew this pious traitor, she sent her blessing with him to the prince her son.

748 Miserable fate of Bothwel.

In the mean time the wretched earl of Bothwel was struggling with the greatest difficulties. Sir William Murray and Kirkaldy of Grange had put to sea in search of him. He had been obliged to exercise piracy in order to subsist himself and his followers. His pursuers came on him unexpectedly at the Orkney islands, and took three of his ships; but he himself made his escape. Soon after, having seized a Turkish trader on the coast of Norway, two ships of war belonging to the king of Denmark gave chase to him as a pirate. An engagement ensued, in which Bothwel was taken. His officers and mariners were hanged in Denmark; but Bothwel himself, being known by some Scottish merchants, had his life spared. He was thrown, however, into a dungeon, where he remained ten years; and at last died melancholy and distracted. The regent sent commissioners to the king of Denmark to demand him as a prisoner; but that prince considering him as a traitor and usurper, totally disregarded his request.

749 Letters forged between Mary and Bothwel.

The dreadful fate of Bothwel did not make any alteration in the situation of the queen. Her enemies, bent on calumniating her, produced letters, which they said were written and sent by her to that licentious nobleman during the life of the king. These letters are now generally admitted to have been forged by the rebels themselves, who practised likewise on some servants of Bothwel to accuse the queen of the murder of her husband. The letters for some time gained credit; but the confessions of the servants were all in her favour. When on the scaffold, they addressed themselves to the people; and after having solemnly declared the innocence of the queen, they protested before God and his angels, that the earl of Bothwel had informed them that the earls of Murray and Morton were the contrivers of the king's murder.

750 Servants of Bothwel executed who declare the innocence of the queen.

It was impossible that such transactions could advance the popularity of the regent. His unbounded ambition and cruelty to his sovereign began at last to open the eyes of the nation; and a party was forming itself in favour of the queen. She had been often meditating her escape from prison; and she at last effected it by means of a young gentleman, George Douglas, brother to her keeper, who had fallen in love with her. On the 2d day of May 1568, about seven o'clock in the evening, when her keeper was at supper with his family, George Douglas, possessing himself of the keys of the castle, hastened to her apartment, and conducted her out of prison. Having locked the gates of the castle, they immediately entered a boat which waited for them; and being rowed across the lake, the lord Seton received the queen with a chosen band of horsemen in complete armour. That night he conveyed her to his house of Niddrie in West Lothian; where having rested a few hours, she set out for Hamilton.

751 The queen escapes from prison An. 1568.

The escape of the queen threw her enemies into the greatest consternation. Many forsook the regent openly; and still more made their submissions privately, or concealed themselves. He did not, however, despond; but resolved to defend himself by force of arms. The queen soon found herself at the head of 6000 men, and the regent opposed her with 4000. Mary, however, did not think it proper to risk a battle: knowing the capacity of the regent as a general, and that his officers were all men of approved valour and experience. But in this prudent resolution she was overruled by the impetuosity of her troops. A battle was fought on the 13th of May 1568, at Langside near Glasgow; in which Mary's army was defeated, and her last hopes blasted. The unfortunate queen fled towards Kirkcudbright; where finding a place of safety, she deliberated on the plan she should afterwards follow. The result of her deliberations, as frequently happens in cases of perplexity, led her to take the worst possible step. Notwithstanding all the perfidy which she had found in Elizabeth, Mary could not think that she would now refuse to afford her a refuge in her dominions; and therefore determined to retire into England. To this she had been solicited by Elizabeth during her confinement in Lochleven castle; and she now resolved, in opposition to the advice of her most faithful counsellors, to make the fatal experiment.

752 The regent raises an army.

753 Mary's army defeated at Langside near Glasgow.

754 She resolves to fly into England,

755 and puts her design in execution.

In obedience to her order, the lord Herries addressed a letter to Mr Lauder, the deputy-commander at Carlisle; and after detailing her defeat at Langside, desired to know if she might trust herself on English ground. This officer wrote instantly an answer, in which he said, that the lord Scroop the warden of the frontiers being absent, he could not of his private authority give a formal assurance in a matter which concerned the state of a queen: but that he would send by post to his court to know the pleasure of his sovereign, and that if in the mean time any necessity should force Mary to Carlisle, he would receive her with joy, and protect her against her enemies. Mary, however, before the messenger could return, had embarked in a fishing boat with 16 attendants. In a few hours she landed at Wirkington in Cumberland; and from thence she proceeded to Cockermouth, where she continued till Mr Lauder, having assembled the gentlemen of the country, conducted her with the greatest respect to the castle of Carlisle.

756 Announces her arrival to Elizabeth,

To Elizabeth she announced her arrival in a despatch, which described her late misfortunes in general and pathetic terms, and in which she expressed an earnest solicitude to pay her a visit at court, and the deep sense she entertained of her friendship and generosity. The queen of England, by obliging and polite letters, condoled with her on her situation, and gave her assurances of all the favour and protection that were due to the justice of her cause. But as they were not accompanied with an invitation to London, Mary took the alarm. She thought it expedient to instruct Lord Fleming to repair to France; and she intrusted Lord Herries with a most pressing remonstrance to Elizabeth. Her anxiety for an interview in order to vindicate her conduct, her ability to do so in the most satisfactory manner, and her power to explain the ingratitude, the crimes, and the perfidy of her enemies, were urged to this princess. A delay in the state of her affairs was represented as nearly equivalent to absolute destruction. An immediate proof was therefore requested from Elizabeth of the sincerity of her professions. If she was unwilling to admit into her presence a queen, a relation and a friend, she was reminded, that as Mary's entrance into her dominions had been voluntary, her departure ought to be equally free and unrestrained. She valued the protection of the queen of England above that of every other potentate on earth; but if it could not be granted,

757 and presses her for an interview.

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granted, she would solicit the amity, and implore the aid, of powers who would commiserate her afflictions, and be forward to relieve them. Amidst remonstrances, however, which were so just and natural, Mary did not fail to give thanks to Elizabeth for the courtesy with which she had hitherto been treated in the castle of Carlisle. She also took the opportunity of begging that this princess would avert the cruelty of the regent from her adherents, and engage him not to waste her kingdom with hostility and ravages; and she had the prudence to pay her compliments in an affectionate letter to Secretary Cecil, and to court his kind offices in extricating her from her difficulties and troubles.

758 Deliberations of Elizabeth and her statesmen concerning Mary.

But the queen of England was not to be moved by remonstrances. The voluntary offer of Mary to plead her cause in the presence of Elizabeth, and to satisfy all her scruples, was rejected. Her disasters were a matter rather of exultation than of pity. The deliberations of the English queen, and those of her statesmen, were not directed by maxims of equity, of compassion, or of generosity. They considered the flight of Mary into England as an accident that was fortunate and favourable to them; and they were solicitous to adopt those measures which might enable them to draw from it the greatest profit and advantage. If the queen of Scots were allowed to return to her own dominions, it was probable that she would soon be in a condition to destroy the earl of Murray and his faction, who were the friends of England. The house of Hamilton, who were now zealous in the interests of France, would rise to consideration and power. England would be kept in perpetual broils on the frontiers; Ireland would receive molestation from the Scots, and its disturbances grow important and dangerous. Mary would renew with redoubled ardour her designs against the Protestant religion; and a French army would again be introduced into Scotland. For these reasons, Elizabeth and her ministers determining not to restore the queen of Scots to her throne, considered what might be the probable consequences of permitting her to remain at liberty in England. In this situation, she would augment the number of her partisans, send her emissaries to every quarter, and inculcate her title to the crown. Foreign ambassadors would afford her aid, and take a share in her intrigues; and Scotland, where there was so high an object to be gained, would enter with cordiality into her views. This plan being also hazardous, it was deliberated whether the queen of Scots might not be allowed to take a voyage to France. But all the pretensions which had hitherto threatened the crown of Elizabeth would in this case be revived. A strong resentment to her would even urge Mary and Charles IX. to the boldest and most desperate enterprises. The party of the queen of Scots in England, strong from motives of religion and affection, and from discontents and the love of change, would stimulate their anger and ambition. England had now no territories in France. A war with that country and with Scotland would involve the greatest dangers. On revolving these measures and topics, Elizabeth and her counsellors were induced to conclude, that it was by far the wisest expedient to keep the queen of Scots in confinement, to invent methods to augment her distress, to give countenance to the regent, and to hold her kingdom in dependence and subjection.

759 They resolve to confine her.

In consequence of this cruel and unjust resolution, Mary was acquainted, that she could not be admitted to Elizabeth's presence till she had cleared herself of the crimes imputed to her; she was warned not to think of introducing French troops into Scotland; and it was hinted, that for the more security she ought to be removed further from the frontier. This message at once showed Mary the imprudence of her conduct in trusting herself to Elizabeth. But the error could not now be remedied. She was watched to prevent her escape, and all her remonstrances were vain. The earl of Murray had offered to accuse her; and it was at last concluded that Elizabeth could not, consistently with her own honour and the tranquillity of her government, suffer the queen of Scots to come into her presence, to depart out of England, or to be restored to her dignity, till her cause should be tried and decided. An order was given to remove her from Carlisle castle to a place of strength at a greater distance from the borders, to confine her more closely, and to guard against all possibility of an escape.

760 Elizabeth refuses to admit the queen into her presence.

761 Mary is removed from Carlisle, and closely guarded.

In consequence of these extraordinary transactions, a trial took place, perhaps the most remarkable for its injustice and partiality of any recorded in history. Mary, confined and apprehensive, submitted to be tried as they thought proper. The regent, who was to be the accuser, was summoned into England, and commissioners were appointed on both sides. On the 4th of October, the commissioners met at York; and, four days after, the deputies of the queen of Scots were called to make known their complaints. They related the most material circumstances of the cruel usage she had received. Their accusations were an alarming introduction to the business in which the regent had embarked; and notwithstanding the encouragement shown to him by Elizabeth, he was assailed by apprehensions. The artifices of Maitland added to his alarms. Instead of proceeding instantly to defend himself, or to accuse the queen, he sought permission to relate his doubts and scruples to the English commissioners. In his own name, and with the concurrence of his associates, he demanded whether they had sufficient authority from Elizabeth to pronounce, in the case of the murder, Guilty or not guilty, according to the evidence that should be laid before them; whether they would actually exercise this power; whether, in the event of her criminality, their sovereign should be delivered to him and his friends, or detained in England in such a way as that no danger should ensue from her activity; and whether, on her conviction, the queen of England would allow his proceedings, and those of his party, to be proper, maintain the government of the young king, and support him in the regency in the terms of the act of parliament which had confirmed him in that office. To these requisitions, it was answered, on the part of the English deputies, that their commission was so ample, that they could enter on and proceed in the controversy; and that they had liberty to declare, that their sovereign would not restore the queen of Scots to her crown, if satisfactory proofs of her crime should be produced: but that they knew not, and were not instructed to say, in what manner she would finally conduct herself as to her person and punishment. With regard to the sovereignty of the prince, and the regency of the earl of Murray, they were points, they observed, which

762 Commissioners for her trial meet at York.

763 Infamous behaviour of Murray.

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might be canvassed at a future period. These replies did not please the regent and his associates; and they requested the English commissioners to transmit their doubts and scruples to be examined and answered by Elizabeth.

But while the regent discovered in this manner his apprehensions, he yet affirmed that he was able to answer the charges brought against him and his faction; and this being in a great measure a matter distinct from the controvery respecting the murder, he was desired to proceed. It was contended, that Bothwel, who had the chief concern in the murder of lord Darnley, possessed such credit with the queen, that within three months after that horrible event, he seized her person, and led her captive to Dunbar, obtained a divorce from his wife, and married her: that the nobility, being moved with his crimes, did confederate to punish him; to relieve her from the tyranny of a man who had ravished her, and who could not be her husband; and to preserve the life of the prince: that having taken arms for these purposes, the earl marched against them; but that, proposing to decide the quarrel by single combat, his challenge was accepted: that he declined to enter the lists, and fled: that the queen, preferring his impunity to her own honour, favoured his escape by going over to the nobility: that they conducted her to Edinburgh, where they informed her of the motives of their proceedings, requested her to take the proper steps against him and the other regicides, and intreated her to dissolve her pretended marriage, to take care of her son, and to consult the tranquillity of her realm: that this treatment being offensive to her, she menaced them with vengeance, and offered to surrender her crown if they would permit her to possess the murderer of her husband: that her inflexible mind, and the necessities of the state, compelled them to keep her at a distance from him, and out of the way of a communication with his adherents: that during her confinement, finding herself fatigued with the troubles of royalty, and unfit for them from vexation of spirit and the weakness of her body and intellect, she freely and of her own will resigned her crown to her son, and constituted the earl of Murray regent; that the king accordingly had been crowned, and Murray admitted to the regency; that the sanction of the three estates assembled in parliament having confirmed these appointments, an universal obedience of the people had ensued, and a steady administration of justice had taken place: that certain persons, however, envious of the public peace and order, had brought her out of prison, and had engaged to subvert the government; that they had been disappointed in their wicked attempts; and that it was most just and equitable, that the king and the regent should be supported in power, in opposition to a rebellious and turbulent faction.

764 His accusation against Mary,

765 confuted by the deputies of Mary.

This apology, so imperfect, so impudent, and so irreconcileable with history, received a complete confutation from the deputies of the queen of Scots. To take arms against her because Bothwel had her favour, was, they said, a lame justification of the earl of Murray and his friends; since it had never been properly manifested to her that he was the murderer of her husband. He had indeed been suspected of this crime; but had been tried by his peers, and acquitted. His acquittal had been ratified in parliament, and had obtained the express approbation of the party who were now so loud in accusing him, and who had conspired against her authority. These rebels had even urged her to accomplish her marriage with him, had recommended him as the fittest person to govern the realm, and had subscribed a bond asserting his innocence, and binding themselves to challenge and punish all his adversaries and opponents. They had never, either before or after the marriage, like true subjects, advertised the queen of his guilt, till, having experience of their strength, they secretly took arms, and invested her in Borthwick castle. The first mark of their displeasure was the sound of a trumpet in hostility, and the display of warlike banners. She made her escape to Dunbar; and they returning to Edinburgh, levied troops, issued proclamations, took the field against her, under pretence of delivering her from his tyranny, and got possession of her person. She was willing to prevent the effusion of blood, and was very far from preferring his impunity to her honour. Kirkaldy of Grange, in obedience to instructions from them, desired her to cause him to retire, and invited her to pass to them under the promise of being served and obeyed as their sovereign. She consented, and Kirkaldy taking Bothwel by the hand, recommended it to him to depart, and assured him that no man would pursue him. It was by their own contrivance that he fled; and it was in their power to have taken him: but they showed not the smallest desire to make him their prisoner. He remained, too, for some time in the kingdom, and was unmolested by them; and it was not till he was on the seas that they affected to go in search of him. When she surrendered herself in the sight of their army, the earl of Morton ratified the stipulations of Kirkaldy, made obeisance to her in their names, and promised her all the service and honour which had ever been paid to any of her predecessors. They were not slaves, however, to their engagements. They carried her to Edinburgh, but did not lodge her in her palace. She was committed to the house of a burgess, and treated with the vilest indignities. She indeed broke out into menaces, and threatened them; nor was this a matter either of blame or of wonder. But it was utterly false that she had ever made any offer of giving away her crown, if she might possess Bothwel. In the midst of her sufferings, she had even required them by Secretary Maitland to specify their complaints, and besought them to allow her to appear in parliament, and to join and assist in seeking a remedy to them from the wisdom of the three estates. This overture, however, so salutary and submissive, they absolutely rejected.—They were animated by purposes of ambition, and had not in view a redress of grievances. They forced her from her capital in the night, and imprisoned her in Lochleven; and there, they affirm, being exhausted with the toils of government and the languors of sickness, she, without constraint or solicitation, resigned her crown to her son, and appointed the earl of Murray to be regent during his minority. This indeed was to assume an unlimited power over facts; but the truth could neither be concealed, subverted, nor palliated. She was in the vigour of youth, unassailed by maladies, and without any infirmity that could induce her to surrender the government of her kingdom. Nor was it unknown to them that the earl of Athol and the barons Tullibardin and Lethington, principal men of their council,

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council, despatched Sir Robert Melvil to her with a ring and presents, with a recommendation to subscribe whatever papers should be laid before her, as the only means in her power to save her life, and with an assurance that what she did under captivity could not operate to her injury. Melvil, too, communicated to her an intimation in writing from Sir Nicholas Throgmorton, which gave her the same advice and the same assurance. To Sir Nicholas Throgmorton she sent an answer, informing him that she would follow his counsel; and enjoining him to declare to his mistress her hapless state, and that her resignation of her crown was constrained. Nor did this ambassador neglect her commission: and it was a popular persuasion that Elizabeth would have marched an army to her relief, if she had not been intimidated by the threats of the rebels, that the blood of the queen of Scots would be the wages of her soldiers. It was also not to be contradicted, that when the lord Lindsay presented to his sovereign the instruments of resignation, he menaced her with a closer prison and a speedy death if she should refuse to subscribe them. It was under an extreme terror, and with many tears, that she put her name to them. She did not consider them as her deeds; did not read them; and protested, that when she was at liberty, she would disavow subscriptions which had been extorted from her. Even Douglas, the keeper of Lochleven, could not endure to be a witness of the violence employed against her. He departed out of her presence, that he might not see her surrender her rights against her will; and he sought and obtained from her a certificate, that he was not accessory to this compulsion and outrage. Nor was it consistent with the slightest probability or reason, that she would, of her own accord, execute a resignation of her royal estate, and retain no provision for her future maintenance. Yet by these extraordinary deeds, the condition to which she was reduced was most miserable and wretched. For no portion of her revenue was reserved to her, and no security of any kind was granted either for her liberty or her life. As to the coronation of the prince, it could have no validity, being founded in a pretended and forced resignation. It was also defective in form; for there were in Scotland more than a hundred earls, bishops, and lords; and of these the whole, or at least the major part, ought to concur in matters of importance. Now there did not assist in it more than four earls, six lords, one bishop, and two or three abbots. Protestations, too, were openly made, that nothing transacted at that period should be of any prejudice to the queen, her estate, and the blood-royal of Scotland, neither could it be rightly conceived, that if the queen had willingly surrendered her dignities, she would have named the earl of Murray to the regency in preference to the duke of Chatelherault, who had a natural and proper claim to it, and who had deserved well of her country by discharging that high office during her minority. As to the ratification of the investiture of the young prince, and the regency of the earl of Murray, by the estates, it was observable, that this was done in an illegal parliament. It was an invalid confirmation of deeds which in themselves had no inherent power or efficacy. The principal nobility, too, objected in this parliament to this ratification. Protestations were made before the lords of the articles, as well as before the three estates, to interrupt and defeat transactions which were hostile to the constitution and the laws. Nor was it true that the government of the king and the regent was universally obeyed, and administered with equity and approbation: for a great division of the nobility never acknowledged any authority but that of the queen, and never held any courts but in her name; and it was notorious, that the administration of the usurpers had been marked and distinguished by enormous cruelties and oppressions. Many honourable families and loyal subjects had been persecuted to ruin, and plundered of their wealth, to gratify the retainers and soldiers who upheld this insolent domination; and murder and bloodshed, theft and rapine, were prevalent to a degree unheard of for many ages. On all these accounts, it was inferred, that Elizabeth ought to support the queen of Scots, to restore her to her crown, and to overthrow the power of a most unnatural and rebellious faction.

766 The regent unable to reply.

To these facts the regent did not pretend to make any objection; and though required by the English commissioners to produce better reasons for his treatment of the queen, he did not advance any thing in his own behalf. He even allowed the charges of treason and usurpation to be pressed against him, without presuming to answer. This surprising behaviour, which might readily have been construed into an acknowledgment of his guilt, it seems, proceeded from some conferences which he had had with the duke of Norfolk. This nobleman was a zealous partisan for the succession of Mary to the English crown. He was strongly possessed with the opinion, that his mistress, while she was disposed to gratify her animosity and jealousies against the queen of Scots, was secretly resolved, by fixing a stain on her, to exclude her altogether from the succession, and to involve her son in her disgrace. He was eager to defeat a purpose, which he conceived to be not only unjust in itself, but highly detrimental to his country. It was in his power to act with this view; and he observed with pleasure, that Maitland of Lethington was favourable to Mary. To this statesman, accordingly, he ventured to express his surprise, that the regent could be allured to think of an attempt so blameable as that of criminating his sovereign. If Mary had really given offence by miscarriage and mistakes, it was not the business of a good subject industriously to hold her out to scorn. Anxious and repeated conferences were held by them; and at length it was formally agreed, that the regent should not accuse the queen of Scots; and that the duke in return should protect him in the favour of Elizabeth, and secure him in the possession of his regency.

767 His extreme insidiousness, and hypocrisy.

But while the regent engaged himself in this intrigue with the duke of Norfolk, he was desirous, notwithstanding, of gratifying the resentments of Elizabeth, and of advancing his own interests by undermining secretly the fame and reputation of his sovereign. He instructed Maitland, George Buchanan, James Macgill, and John Wood, to go to the duke of Norfolk, the earl of Sussex, and Sir Ralph Sadler, and to communicate to them as private persons, and not in their character of commissioners, the letters to Bothwel, and the other proofs on which he affirmed the guilt of the queen of Scots. It was his desire that they should examine these papers, give their opinion of them to Elizabeth, and inform him whether she judged them sufficient

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ficient evidences of Mary's concern in the murder of her husband. If this should be her opinion, he testified his own readiness, and that of his associates, to swear that the papers were genuine, and of the handwriting of the queen. By this operation, he was solicitous to establish his vouchers as incontestable, and as testimonies of record. The commissioners examined his papers, and heard the comments of Buchanan and his other assistants; but they do not seem to have given them much credit. They described them, however, to Elizabeth; pointed out the places of them which were strongest against Mary; and allowed that their force and meaning were very great, if their genuineness could be demonstrated. But of their genuineness they acknowledged that they had no other evidence than stout assertions, and the offer of oaths. The earl of Sussex, in a private despatch to Secretary Cecil, does more than insinuate, * that he thought Mary would be able to prove the letters palpable forgeries; and with respect to the murder of the king, he declares, in plain terms, that from all he could learn, Murray and his faction would, on a judicial trial, be found by "proofs hardly to be denied," more criminal in that charge than the queen herself. Elizabeth and her ministers, on the receipt of such despatches, did not think it expedient to empower them to adopt a method of proof so palpably suspicious, and in which she could not openly concur, without grossly violating even the appearance of probity. The regent had before attempted to engage her in a direct assurance of the validity of his papers, when he submitted copies of them to her inspection by his secretary Mr Wood. His attempt at this juncture was of a similar kind; and it could not recommend him to the English commissioners.

* *Robertson of Dalmeny's History, &c. book*

Nor were these the only transactions which took place during the continuance of the commissioners at York. The inventive and refining genius of Lethington had suggested to him a project, which he communicated in confidence to the bishop of Ross. It received the warm approbation of this ecclesiastic; and they determined to put it to a trial. While they attended the duke of Norfolk to the diversion of hawking, they insinuated the notion of his allying himself with the queen of Scots. Her beauty, her accomplishments, and her kingdom, were high allurements to this nobleman; and as he was the greatest subject of England, and perhaps of Europe, he seemed not to be unworthy of them. The proposal was very flattering to the admiration he entertained of Mary, to his ambition, and to his patriotism. The more he thought of it, he was the more convinced of its propriety. His access to be informed of the practices of the regent, destroyed in him the operation of those slanders by which her enemies were so active in traducing her. In this state of his mind, the lady Scroop, his sister, who resided at Bolton Castle with Mary, completely confirmed his resolution. For from her he learned the orderly carriage and the amiable dispositions of the queen of Scots. He was now impatient to have a fit season to make her formally the offer of his hand.

Elizabeth in the mean time was thrown into confusion by the refusal of the regent to accuse the queen of Scots. To give a positive answer to his doubts and scruples was not consistent with her honour; and yet without this condescension, she was assured that the Scottish deputies would not exhibit their charge of crimination. Having deceived Mary therefore with fair promises, she was active in gaining over the regent to her views; which having done, he at last consented to prefer his accusation against Mary before the commissioners, who now met at Westminster by the command of Elizabeth. The charge was expressed in general and presumptive terms. It affirmed, that as James earl of Bothwel was the chief executor of the murder of King Henry, so the queen was his persuader and counsel in the device; that she was a maintainer and fortifier of this unnatural deed, by stopping an enquiry into it and preventing its punishment, and by taking in marriage the principal regicide; that they had begun to exercise a cruel tyranny in the commonwealth, and had formed a resolution of destroying the innocent prince, and of transferring the crown from the true line of its kings to a bloody murderer and a godless tyrant; and that the estates of the realm, finding her unworthy of reigning, had ordered her to resign the crown, her son to be crowned, and the earl of Murray to be established in the regency. Before this accusation was preferred, the earl of Lenox presented himself before the English commissioners; made a lamentable declaration of his griefs, and produced to them the letters which had passed between him and Mary concerning the murder, with a writing which contained a direct affirmation of her guilt.

768 Articles of the queen's accusation.

769 Remonstrances of the Scots deputies.

The deputies of Mary were astonished at this accusation, being a violent infringement of a protestation which they had formerly given in, and which had been accepted, namely, that the crown, estate, person, and honour of the queen of Scots, should be guarded against every assault and injury; yet in all these particulars she was touched and affected. It was understood that no judicial proceedings should take place against her; yet she was actually arraigned as a criminal, and her deputies were called on to defend her. They discovered not, however, any apprehension of the validity of the charge; and while they fully explained the motives which actuated the earl of Murray and his faction in their proceedings, they imputed to persons among themselves the guilt of the king's murder. They affirmed, that the queen's adversaries were the accomplices of Bothwel; that they had subscribed a bond conspiring the death of the king; and that their guilt had been attested in the sight of 10,000 spectators, by those of their confederates who had already been executed. They exclaimed against the enormous ingratitude, and the unparalleled audacity of men, who could forget so completely all the obligations which they owed to their sovereign; and who, not satisfied with usurping her power, could even charge her with a murder which they themselves had committed. They represented the strong necessity which had arisen for the fullest vindication of their mistress; and they said, that in so weighty an extremity, they could not possibly suppose that she would be restrained from appearing in her own defence. They had her instructions, if her honour was touched, to make this requisition; and till it was granted, they insisted, that all proceedings in the conference should be at an end. A refusal of this liberty, in the situation to which she was driven, would be an infallible proof that no good was intended her. It was their wish to deal with sincerity and uprightness; and they were persuaded,

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ed, that without a proper freedom of defence, their queen would necessarily fall a victim to partiality and injustice. They therefore earnestly pressed the English commissioners, that she might be permitted to present herself before Elizabeth, the nobles of England, and the ambassadors of foreign nations, in order to manifest to the world the injuries she had suffered, and her innocence.

770 They are admitted to an audience by Elizabeth,

After having made these spirited representations to the English commissioners, the deputies of Mary desired to have access to the queen of England. They were admitted accordingly to an audience; and in a formal address or petition they detailed what had happened, insisted that the liberty of personal defence should be allowed to their mistress, and demanded that the earl of Murray and his associates should be taken into custody, till they should answer to such charges as might be preferred against them. She desired to have some time to turn her thoughts to matters of such great importance; and told them, that they might soon expect to hear from her.

771 and make proposals of accommodation.

The bishop of Ross, and the other deputies of Mary, in the mean time, struck with the perfidious management of the conference, convinced of the jealousies and passions of Elizabeth, sensible that her power over her commissioners was unlimited, and anxious for the deliverance of their mistress, made an overture for an accommodation to the earl of Leicester and Sir William Cecil. They proposed, that the original meaning of the conference should still be adhered to, notwithstanding the accusation which had been presented by the earl of Murray; and that Elizabeth, disregarding it as an effort of faction, should come to a good agreement with Mary and her subjects. For this scheme, which is so expressive of their suspicions of Elizabeth and of her commissioners, they had no authority from their mistress. They acknowledged accordingly, that it was made without her instructions, and intimated that they were moved to it by their anxiety for peace and the re-establishment of the affairs of the Scottish nation. They were introduced at Hampton-court to Elizabeth; who listened to their motion, and was averse to it. They then repeated the desires of the petition they had presented to her; but she did not think it right that the queen of Scots should as yet have the liberty of defending herself in person. She confessed, indeed, that it was reasonable that Mary should be heard in her own cause; but she affirmed, that she was at a loss at what time she should appear, in what place, and to whom she should address herself. While she let fall, however, the hope that Mary might obtain the permission so repeatedly and so earnestly requested, she expressed her resolution that the earl of Murray should first be heard in support of his charge, and that she should attend to the proofs which he affirmed himself in readiness to produce. After this business should be transacted, she told the deputies of Mary that she would again confer with them. It was to no purpose that they objected to a procedure so strange and so improper. An accusation, said they, is given; the person accused is anxious to defend herself; this privilege is denied her; and yet a demand is to be made for the vouchers of her guilt. What is this but an open violation of justice? It did not become them to dispute her pleasure in her own dominions: but they would not, they informed her, consent to a measure which was so alarming to the interests of their queen; and if it was adopted, she might expect that a protest against its validity would be lodged with her commissioners.

772 Shameful conduct of Elizabeth.

773 Altercation between the commissioners.

The English commissioners resumed the conference, and were about to demand from the earl of Murray the proofs with which he could support his accusation. The bishop of Ross and his associates being admitted to them, expressed themselves in conformity to the conversation they had held with Elizabeth. They declared, that it was unnatural and preposterous in their sovereign to think of receiving proofs of the guilt of the queen of Scots before she was heard in her own defence; and they protested, that in the event of this proceeding, the negociation should be dissolved, and Elizabeth be disarmed of all power to do any prejudice to her honour, person, crown, and estate. The commissioners of the English queen were affected with this protestation, and felt more for the honour of their mistress than for their own. They refused to receive it, because there were engrossed in it the words of the refusal which Elizabeth had given to the petition for Mary. They did not choose to authenticate the terms of this refusal by their subscriptions; and were solicitous to suppress so palpable a memorial of her iniquity. They alleged, that the language of her refusal had not been taken down with accuracy; and they pressed Mary's deputies to present a simpler form of protestation. The bishop of Ross and his colleagues yielded not, however, immediately to their insidious importunity; but, repeating anew their protestation as they had at first planned it, included the express words of Elizabeth; and, when compelled by the power of the commissioners to expunge the language of the English queen, they still insisted on their protestation. An interruption was thus given to the validity of any future proceedings which might affect the reputation of the queen of Scots. The earls of Murray and Morton, with their friends, were very much disappointed. For they had solaced themselves with the hope of a triumph before there was a victory; and thought of obtaining a decree from Elizabeth, which, while it should pronounce the queen of Scots to be an adulteress and a murderer, would exalt them to the station and character of virtuous men and honourable subjects.

774 Elizabeth demands vouchers of the crimes laid to Mary's charge.

Though the conference ought naturally to have terminated on this protestation of the deputies of Mary against the injustice of Elizabeth, yet it did not satisfy the latter princess that the accusation only had been delivered to her commissioners: she was seriously disposed to propose a judicial production of its vouchers. The charge would thus have a more regular aspect, and be a sounder foundation on which to build, not only the infamy of the Scottish queen, but her own justification for the part she had acted. Her commissioners accordingly, after the bishop of Ross and his colleagues had retired, disregarding their protestation, called on the earl of Murray and his associates to make their appearance. The pretence, however, employed for drawing from him his papers was sufficiently artful, and bears the marks of that systematic duplicity which so shamefully characterizes all the transactions of Elizabeth at this period. Sir Nicholas Bacon the lord keeper addressed himself to the earl of Murray. He said, that, in the opinion of the queen of England, it was a matter strange

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strange and surprising, that he should accuse his sovereign of a crime most horrible, odious to God and man, against law and nature; and which, if proved to be true, would render her infamous through all the kingdoms of the world. But though he had so widely forgotten his duty, yet Elizabeth had not renounced her love of a good sister, a good neighbour, and a good friend; and it was her will that he and his company should produce the papers by which they imagined they were able to maintain their accusation. The earl of Murray, in his turn, was not wanting in dissimulation. He expressed himself to be very sorry for the high displeasure he had given to Elizabeth by his charge against Mary, and for the obstinacy of the Scottish queen and her deputies, which made it necessary for him to vindicate himself by discovering her dishonour. Under the load of this double and affected sorrow, he made an actual and formal exhibition of the vouchers by which he pretended to fix and establish her criminality. A particular account and examination of these vouchers, the reader will find in our life of MARY, and the works to which we have there referred.

775 Conclusion of Mary's trial. An. 1569.

To enumerate all the shifts to which Elizabeth and the adversaries of Mary were put, in order to make the strange evidence that was produced wear some degree of plausibility, would far exceed our bounds. It is sufficient to say, that after having wearied themselves with prevarication and falsehood; after having pressed Mary to abdicate her crown, a requisition with which she never would comply; and after having finally refused to hear her in her own defence; Elizabeth, on the 10th of January 1569, gave leave to the earl of Murray and his accomplices to depart her dominions; telling them, that since they came into England, nothing had been objected to them which could hurt their honour as men, or affect their allegiance as subjects. At the same time she told them, that they had produced no information or evidence by which she was entitled to conceive any bad opinion of the queen of Scots. It was therefore her pleasure to allow the affairs of Scotland to continue precisely in the condition in which they were situated at the beginning of the conference. Three days after this, they formally took their leave of the queen of England. The deputies of Mary remonstrated, protested, and argued, to no purpose; the English privy-council, with the most provoking indifference, told them, that "the earl of Murray had promised to their sovereign, for himself and his company, to return to England at any time she should call on him. But, in the mean time, the queen of Scots could not, for many strong reasons, be permitted to take her departure out of England. As to her deputies, they would move Elizabeth to allow them to return to Scotland; and they believed that she would not detain them."

Mary was exceedingly disappointed and chagrined by this singular issue of her cause. Her friends during this period had increased, and the cruel and injurious treatment she had met with was so flagrant, that the earl of Murray and his faction were apprehensive of a sudden reverse of fortune. The earls of Argyle and Huntly protested against the injustice of their proceedings, at the same time that they openly accused the earl of Murray and Maitland of Lethington as the associates of Bothwel in the murder of the king. This charge, according to the custom of the times, they offered to prove as true and certain by the law of arms; and they protested, that if their adversaries should delay to answer their challenge, they should be held as confessing themselves guilty of the murder. Elizabeth, however, foreseeing something of this kind, had dismissed Murray and his adherents with precipitation, so that there could now be no formal production of it before the English commissioners. It was known and published, however, in the court of Elizabeth. Murray made an evasive reply, and Lethington made none at all.

776 Earl of Murray, &c. charged with the king's murder, and challenged to single combat.

777 Mary committed to closer confinement.

This, however, afforded no relief to the unhappy queen of Scotland. Her inveterate and treacherous enemy held her fast, and endeavoured by every method in her power to render her life miserable. Mary, on the other hand, lost neither her spirit nor her dignity. She attempted to rouse in the minds of her nobles that passion for liberty which had once so much distinguished the Scottish nation, but which now seemed to be exchanged for a servile subjection to the queen of England. But some despatches which urged these topics being intercepted, Mary was removed from Bolton to Tutbury castle, where she was intrusted to the earl of Shrewsbury, and committed to closer confinement than she had yet experienced; while Elizabeth dispersed manifestoes all over the northern counties of England, complaining of reports injurious to her honour, and disclaiming all hostile intentions towards the liberties of Scotland.

778 The regent secures himself in power.

In the mean time Murray returned to Scotland, where he took every method of establishing himself in his ill acquired power. Mary had commanded the duke of Chatelherault to return to Scotland, in order to raise forces for her advantage; but this nobleman had been so long detained in England by the artifices of Elizabeth, that Murray had arrived there before him. The duke, however, began to raise forces, and might have proved a troublesome antagonist, had not Murray deceived him by a pretended negociation, and got him into his power; immediately after which he imprisoned him, and forced most of the other lords who were on that side to submit.

779 Negociations in England.

When the news of this important event reached the queen of Scots, she instructed the bishop of Ross to repair to Elizabeth, and to make remonstrances in their behalf. By the agency of this ecclesiastic, whom she had constituted her ambassador, she meant to conduct her transactions with the queen of England; and from the conclusion of the conferences, she had been meditating a proper plan on which to accomplish her liberty and restoration. The bishop of Ross, after complaining loudly of the rigorous proceedings of the regent, and intimating the general belief which prevailed that he was supported by the English court, pressed the propriety of a final settlement of the affairs of his mistress. With this view, he was admitted by Elizabeth and her privy-counsellors to frequent conferences; and they even desired him to present to them in writing the articles which he was commanded to propose as the foundation of a treaty. He failed not to comply with this injunction; and it was the import of his schedule of agreement, that Mary should engage never to molest Elizabeth, and the lawful heirs of her body, respecting the succession to the crown of England and Ireland, if she could obtain sufficient security that on their demise her rights would be respected; that a new treaty of alliance and

and friendship should be concluded between the two queens, by the advice of the estates of both kingdoms; that this league should be ratified by their oaths and seals, and confirmed by parliamentary acts; and, if any farther assurance should be deemed necessary on the part of Mary, that she would procure the kings of France and Spain to be the guarantees of her punctuality and concord; that in compliance with the pleasure of Elizabeth, she would extend her clemency to all her subjects who had offended her, under the provision that they would submit to her sovereignty, deliver up the prince her son, restore her castles, give back her jewels, and surrender to her friends and servants the estates and possessions of which they had been deprived; that the murder of the king should be punished against all the actors in it without delay, and according to the laws; that to prevent Bothwel from returning to Scotland, and to please those who imagined that it was in his power to excite ferments and trouble, she would be bound to institute a process of divorce against him; and that these articles being adjusted, the queen of England should allow her to proceed to Scotland, under a safe and honourable convoy, to be re-established by the three estates in her realm and government, and to be gratified with the dissolution of all the acts and statutes which had been passed to her prejudice.

780 Advances are made in the projected marriage of Mary with the duke of Norfolk.

These heads of alliance were received with a respect and cordiality which were not usually paid to the transactions of Mary in the court of Elizabeth; and the bishop of Ross was elated with expectation. Their justice, however, was not the sole, or even the chief, cause of this attention and complaisance. A combination of the English nobles had taken place against Cecil, whose power and credit were objects of indignation and jealousy; and the duke of Norfolk had been active and successful in promoting the scheme of his marriage with the queen of Scots. Taking advantage of the condition of parties, he had practised with the principal nobility to encourage his pretensions to Mary; and he secretly communicated to them the promises of support he had received from the earl of Murray. By the advice and influence of Sir Nicholas Throgmorton, he engaged in his behalf the earl of Leicester; and this nobleman imparted the matter to the earls of Pembroke and Arundel. The duke himself was able to conciliate the favour of the earls of Derby, Bedford, Shrewsbury, Southampton, Northampton, Northumberland, Westmoreland, and Sussex. In the mean time, he was eagerly pressing Mary herself with his suit and importunities; and had mutually exchanged the tokens of a constant and sincere love. It was in this forward state of the match, that the bishop of Ross drew up the schedule of articles for the accommodation of the rival queens.

781 The English nobles propose articles to Mary.

At the desire of Elizabeth, her privy-council conferred with the bishop on these articles at different times; and they expressed themselves highly pleased with their general import. Little doubt was entertained of their success; and the earl of Leicester, in order to complete the business, and to serve the duke of Norfolk, undertook to give them a more special force, and to improve them by the introduction of a stipulation about the marriage of the queen of Scots. According to his scheme of agreement, it was required of Mary, that she should be a party to no attempt against the rights and titles of the queen of England, or her heirs; that she should consent to a perpetual league, offensive and defensive, between the two kingdoms; that she should finally establish the Protestant religion in Scotland; that she should admit to her favour those of her subjects who had appeared against her; that if she had made any assignment of her kingdom to the duke of Anjou, in the expectation of a marriage to be contracted between them, it should be dissolved; and that instead of looking to a foreign prince, whose alliance would be dangerous, not only to the religion but to the liberty of the two realms, she would agree to marry the duke of Norfolk, the first peer of England. These articles being communicated to the bishop of Ross, he was desired to transmit them to Mary; but as they touched on some points concerning which he had no instructions, he declined this office, and recommended the propriety of their employing a special messenger of their own in a commission of such high importance. They accordingly appointed Mr Candish to go with them to the queen of Scots, and, in a formal despatch, they extolled the merits of the duke of Norfolk; assured her of the general favour and support of the English nobility, if she should approve of his love; and intimated their belief that Elizabeth would not be averse to a marriage which gave the certain prospect of tranquillity and happiness to the two kingdoms. This despatch was in the handwriting of Leicester; and it was subscribed by this nobleman, and the earls of Arundel and Pembroke, and the lord Lumley.

782 Mary agrees to the treaty proposed to her.

Mary, in the solitude of her prison, received this application with pleasure. By the lord Boyd she returned a very favourable answer to it; but took the liberty to admonish them of the necessity of their securing the good-will of Elizabeth, lest her dislike of the treaty of marriage should excite new disasters and misfortunes, and involve the duke of Norfolk in inconvenience and danger. This advice, the suggestion of her delicacy and prudence, did not draw their attention sufficiently. The duke of Norfolk was now impatient to conclude this great transaction, in which he had engaged himself; and admitted into his councils many nobles whom he had hitherto neglected to court, and many gentlemen who were considerable from their distinction and fortunes. The countenance and consent of the kings of France and Spain were thought necessary to the measures in agitation, and were solicited and obtained. In the universality of the applause with which they were honoured, it was supposed that Elizabeth would be allured into a cordial acknowledgement of their propriety, or be compelled to afford them a reluctant approbation; and so ardent a belief prevailed of their fortunate termination, that the marriage-contract was actually intrusted to the keeping of M. Fenelon the French ambassador.

The activity of the duke of Norfolk with the English nobles did not so much engross his attention as to make him forget the regent. He kept up a close correspondence with him in consequence of the concert into which they had entered, and received the most ample assurances of his fidelity and service. The most sanguine and seducing hopes elated him. The regent, while he stipulated for terms of favour and security to himself and his faction, appeared to be full of the marriage, as a measure from which the greatest advantages would.

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would arise to the two kingdoms, to the two queens, and to the true religion. The match, in the mean time, was anxiously concealed from Elizabeth; but she was zealously pressed to conclude an accommodation with Mary, on the foundation of the schedule of agreement presented by the bishop of Ross. After having had many conferences with her privy-council, she seemed inclined to treat definitively for the restoration of the queen of Scots, and actually agreed to open the transaction to the regent. The lord Boyd was sent into Scotland on this business; and while he carried her letters, he was intrusted with despatches from Mary, the duke of Norfolk, and Sir Nicholas Throgmorton.

As the regent was returning from his northern expedition, he was saluted at Elgin by the lord Boyd, who immediately laid before him the despatches and instructions with which he had been charged. The queen of England, in her letters, made three propositions in behalf of Mary, and intimated a desire that one of them should be accepted. The queen of Scots, she said, might be restored fully and absolutely to her royal estate: she might be associated in the government with her son, have the title of *queen*, and, till the prince should attain the age of 17 years, the administration might continue in the regent; or she might be permitted to return to Scotland in a private station, and have an honourable appointment to maintain her in a safe and happy obscurity. The despatches from Mary to the regent desired, that judges might immediately be allowed to inquire into the legality of her marriage with Bothwel: and that, if it was found to have been concluded in opposition to the laws, it should be declared void, and that the liberty be granted to her of entering again into a matrimonial engagement. The duke of Norfolk expressed to the regent the gratitude he felt for his friendship; promised him the command of the fullest exertions of his consequence and power; intreated him to proceed expeditiously in promoting the business of the marriage, and referred him to the instructions of lord Boyd for a satisfactory answer to any doubts which might give him disgust or uneasiness. By the letters of Throgmorton, the regent was advertised that the marriage of the queen of Scots with the duke of Norfolk was a certain and decided point; and he was counselled to concur heartily and expeditiously in this transaction, that his consent might not seem to have been extorted. Maitland of Lethington was recommended to him by this statesman, as the person whom he should choose to represent him in the English court, as he could negociate best the terms and mode of his security and of that of his party. In fine, Throgmorton intreated him not to be troubled with any precise scruples or objections, for that his overthrow, if he resisted, would be inevitable; and, in the view of his services and cordiality, he assured him, that no man's friendship would be accepted with greater affection, and no man's estimation be higher or more fortunate. The zeal of Throgmorton induced him also, on this occasion, to address to Maitland a despatch, in which he was infinitely importunate to hasten his expedition to England, in the character to which he recommended him. He complimented him as the fittest person to open the match to the English queen, on the part of the regent and the Scottish nobility; and he represented the success of the scheme to be infallible, as Elizabeth would never be so unwise as to put her own safety, the peace of her kingdom, and the preservation of her people, in competition with the partial devices that might proceed from the vanity and the passions of any person whatever. He enumerated the names of the English nobility who had confederated to promote the marriage. He enlarged on it as an expedient full of wisdom, and as advantageous in the highest degree to religion and the state. He pointed out the lasting and inseparable connexion of England and Scotland, as its happy and undoubted consequence. For, if James VI. should die, the sceptres of the two kingdoms might devolve on an English prince; and if he should attain to manhood, he might marry the daughter of the duke of Norfolk, and unite, in his person, the two crowns.

783 The requests of Mary.

784 Importunities of Norfolk.

785 Deliberation of the estates on the restoration, &c. of the queen.

These weighty despatches fully employed the thoughts of the regent. The calls of justice and humanity were loud in the behalf of Mary; his engagements to Norfolk were precise and definitive; and the commission of Elizabeth afforded him the command of the most important services. But, on the other hand, the restoration of Mary, and her marriage, would put an end for ever to his greatness; and, amidst all the stipulations which could be made for his protection, the enormity of his guilt was still haunting him with suspicions and terror. His ambition and his selfish sensibilities were an overmatch for his virtue. He practised with his partisans to throw obstacles in the way of the treaty and the marriage; and, on pretence of deliberating concerning the restoration of Mary, and on her divorce from Bothwel, a convention of the estates was summoned by him to assemble at Perth. To this assembly the letters of Elizabeth were recited; and her propositions were considered in their order. The full restoration of Mary to her dignity was accounted injurious to the authority of the king; and her association with her son in the government was judged improper and dangerous: but it was thought that her deliverance from prison, and her reduction to a private station, were reasonable expedients. No definitive treaty, however, was pronounced. The letters of Mary were then communicated to this council, and gave rise to vehement debates. She had written and subscribed them in her character of queen of Scotland. This carriage was termed *insolent* and *imperious* by the friends of the regent. They also held it unsafe to examine her requests, till they should be communicated to Elizabeth; and they insinuated, that some inclement and partial device was concealed under the purpose of her divorce from the earl of Bothwel. The favourers of Mary endeavoured to apologize for the form of the letters, by throwing the blame on her secretaries; and engaged, that while the commissaries, or judges, were proceeding in the business of the divorce, new despatches in the proper method should be applied for and procured. They were heard with evident symptoms of displeasure; and exclaimed, "that it was wonderful to them, that those very persons who had lately been so violent for the separation of the queen and Bothwel should now be so averse to it." The partisans of the regent replied, "that if the queen was so eagerly solicitous to procure the divorce, she might apply to the king of Denmark to execute Bothwel as the murderer of her husband; and that then she might marry the person who was most agreeable to her." The passions of the two factions were

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were inflamed to a most indecent extremity, and the convention broke up with strong and unequivocal marks of hostility and anger.

786 Elizabeth disappoints the designs of Mary and Norfolk.

Notwithstanding the caution with which Mary and Norfolk carried on their intrigues, intimations of them had come to Elizabeth. Norfolk himself, by the advice of the earl of Pembroke, had ventured to disclose his secret to Sir William Cecil, who affected to be friendly to him. The regent, in answer to her letters, transmitted to her the proceedings of the convention at Perth. The application of Mary for a divorce was a key to the ambitious hopes of the duke of Norfolk. She commanded Sir William Cecil to apply himself to discover the conspiracy. This statesman betrayed the confidence with which he had been entrusted; and Elizabeth, while the duke was attending her at Farnham, discovering a mixture of pleasantry and passion, admonished him to be careful on what pillow he reposed his head. The earl of Leicester, alarmed by his fears, revealed to her at Titchfield the whole proceedings of the duke of Norfolk and his friends. Her fury was ungovernable; and at different times she loaded Norfolk with the severest reproaches and contumely, for presuming to think of a marriage with the queen of Scots without the sanction of her concurrence. Insulted with her discourse and her looks, abandoned by Leicester, and avoided by other nobles in whom he had confided, he felt his courage to forsake him. He left the court at Southampton without taking his leave, and went to London to the earl of Pembroke. New intimations of her displeasure were announced to him, and he retired to his seat at Kinninghall in Norfolk. His friends urged him to take the field, and to commit his safety to the sword; but having no inclination to involve his country in the miseries of war, he rejected their advice; and addressing an apology to Elizabeth, protested that he never meant to depart from the fidelity which he owed her; and that it was his fixed resolution to have applied for her consent to his marriage with the queen of Scots. In return, she ordered him to repair to her court at Windsor; and, as he appeared to be irresolute, a messenger was despatched to take him into custody. He was first confined to the house of Paul Wentworth, at Burnham, in the neighbourhood of Windsor, and then committed to the Tower. The earls of Pembroke and Arundel, the lord Lumley, Sir Nicholas Throgmorton, and the bishop of Ross, were also apprehended and confined.

787 Mary exposed to new indignities.

Elizabeth, amidst the ferment of her inquietudes, forgot not to gratify her revenge by insulting the queen of Scots. The name of Mary was sufficient to convulse her with anger. The earl of Huntingdon, who affected to have pretensions to the crown of England that were preferable to those of the Scottish princess, was joined with the earl of Shrewsbury in the office of guarding her. His instructions were rigorous, and he was disposed to exceed them. The earl of Shrewsbury considered it as an indignity to have an associate who was a declared enemy to his charge, who had an interest in her death, and who was remarkable for a natural ferocity of disposition. Mary exclaimed against the indelicacy and rudeness of Elizabeth, and protested that all her intentions were commendable and innocent. Huntingdon took a delight in her sufferings. He ransacked her coffers with a view of making discoveries; but her prudence had induced her to destroy all the evidences of her transactions with the duke of Norfolk; and the officious assiduity of this jailor was only rewarded with two ciphers which he could not comprehend. The domestics whom she favoured were suspected and dismissed. Her train of attendants was diminished. An unrelenting watch was kept over her. No couriers were allowed to carry her despatches. No messengers were admitted to her presence; and all the letters from her friends were ordered to be intercepted, and to be conveyed to the queen of England.

788 Norfolk betrayed by the regent.

The proceedings of the convention at Perth were afflicting to Elizabeth, to Mary, and to the duke of Norfolk. In the first they created suspicions of the regent; and they were a certain annunciation to Mary, that he was resolved to support himself in the government of Scotland. Uncertain rumours had reached Elizabeth of the interviews he had held with Norfolk in the business of the marriage. Her surprise and indignation were unbounded. Mr Wood, who brought from the regent his answer to her letter, was treated with disrespect. Secretary Cecil despatched instructions to the lord Hunsdon, the governor of Berwick, to watch his operations with a jealous eye. Elizabeth, by a special envoy, required from him an explanation of his ambiguous carriage. The regent, true to his interests, apologized to her for his connexions with the duke of Norfolk, by laying open the design of that nobleman, to cut him off, in his way to Scotland, by a full communication of whatever had passed between them in relation to Mary, and by offers of an unlimited submission and obedience.

789 Insurrection in England.

While the duke of Norfolk was carrying on his intrigues with Mary, the scheme of an insurrection for her deliverance was advancing under the direction of the earls of Northumberland and Westmoreland. Motives of religion were the chief foundations of this conspiracy; and the more zealous Catholics over England were concerned in it. Mary, however, by the advice of the duke of Norfolk, who was afraid of her marrying a foreign prince, did not enter into it with cordiality. It advanced notwithstanding; and the agents of the pope were lavish of exhortations and donatives. The duke of Alva, by order of his master the king of Spain, encouraged the conspirators with the offer of 20,000 men from the Netherlands; and, under the pretence of adjusting commercial disputes, he sent into England Chiapini Vitelli marquis of Celona, an officer of ability, that he might be at hand, and prepare to take the command of them.—The report of an insurrection was universal. Elizabeth kept an army of 15,000 men near her person. The queen of Scots was removed to Coventry, a place of great strength; and if a superior and commanding force should appear before it, her ferocious keeper, it is said, had orders to assassinate her. Repeated commands were sent to the earls of Northumberland and Westmoreland, to repair to court. But the imprisonment of the duke of Norfolk and his friends had struck a panic into them. They conceived that their conspiracy was discovered; and putting themselves at the head of their followers, they issued their manifesto. The restoration of Popery, the establishment of the titles of Mary to the English crown, and the reformation of abuses in the commonwealth, were the avowed objects of their enterprise. But they had embarked in

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in a business to which they were altogether unequal. Their efforts were feeble and desultory. The duke of Alva forgot his promises. Wherever the peace was disturbed by insurgents, there were troops to oppose them. The vigilance of Elizabeth disconcerted with ease the operations of men whom no resources or popularity could have conducted to greatness, and who could neither conquer nor die. The earl of Westmoreland, after concealing himself for some time in Scotland, effected his escape into Flanders, where he passed a miserable and useless existence; and the earl of Northumberland being taken by the regent, was imprisoned in the castle of Lochleven.

790 Elizabeth liberates Norfolk and his friends.

As the fury of Elizabeth abated, her resentment to the duke of Norfolk lost its power; and she failed not to distinguish between the intrigues of an honourable ambition, and the practices of an obstinate superstition. It was the result of the examination of this nobleman, and of the confessions of the other prisoners, that Lethington had schemed the business of the marriage, and that the earl of Murray had encouraged it; that her consent was understood to be necessary to its completion; and that Mary herself had warmly recommended the expedient of consulting her pleasure. On receiving proper admonitions, the earls of Pembroke, Arundel, the lord Lumley, Sir Nicholas Throgmorton, and the bishop of Ross, were released from confinement; and, after a more tedious imprisonment, the duke of Norfolk was set at liberty. This favour, however, was not extended to him till he had not only submissively acknowledged his presumption in the business of the marriage, but had fully revealed whatever had passed between him and Mary, and solemnly engaged never more to think of this alliance, and never more to take any concern whatever in her affairs.

791 Maitland of Lethington accused of Darnley's murder.

The regent, in the meanwhile, was very anxious to recover the good opinion of Elizabeth. Her treatment of Mr Wood, and her discovery of his practices, had excited his apprehensions. He therefore assembled at Stirling a convention of the estates; and taking her letters a second time into consideration, returned her a reply by Robert Pitcairn abbot of Dunfermline, in a style suited to her temper and jealousies, and from which she could decisively infer, that no favour of any kind would be shown to the queen of Scots. But this base condecension, though assisted by his treachery to the duke of Norfolk, not being sufficient, in his opinion, to draw completely to him the cordiality of the queen of England, he was preparing to gratify her with another sacrifice. The partiality of Maitland to Mary, and his intrigues with Norfolk and the English malcontents, had rendered him uncommonly obnoxious to Elizabeth and her ministry. The late commotions had been chiefly ascribed to his arts; and it was natural to dread new calamities and tumults from the fertile spring of his invention. Under pretence of employing his service in despatches to England, the regent invited him to Stirling. He was then with the earl of Athol at Perth; and suspecting some improper design, he obeyed the summons with reluctance. When he took his place in the privy-council, Captain Crawford, the minion of the earl of Lenox, who had distinguished himself in the trial of Mary, accused him, in direct terms, of being a party in the murder of the late king. The regent affected astonishment, but permitted him to be taken into custody. He was soon after sent to Edinburgh under a guard, and admonished to prepare for his trial. On similar charges, the lord Seton and Sir James Balfour were seized on and imprisoned.

792 He is protected by Kirkaldy of Grange.

Kirkaldy of Grange, the governor of the castle of Edinburgh, who was warmly attached to Maitland, after having in vain remonstrated with the regent on the violence of his conduct, employed address and stratagem in the service of his friend. Under the cover of night, he went with a guard of soldiers to the lodging where Maitland was confined; and showing a forged warrant for taking his person into custody, got possession of him. Kirkaldy had now in his castle the duke of Chatelherault, the lord Herries, and Maitland. The regent sent for him to a conference; but he refused to obey his message. He put himself and his fortress under the direction of his prisoners. The regent, condescending to pay him a visit, was more lavish than usual of his promises and kindness. His arts, however, only excited the disdain of this generous soldier. Since he could not lead out Maitland to the block, he instituted a process of treason against him, in order to forfeit his estases. Kirkaldy, by the mouth of a trumpeter, desired him to commence similar actions against the earl of Morton and Mr Archibald Douglas, as it was notorious that they were parties to the king's murder. This messenger was likewise charged with delivering a challenge from him to Mr Archibald Douglas, and another from the lord Herries to the earl of Morton. This disappointment, and these indignities, made a deep impression on the regent; and, in a thoughtful dissatisfied humour, about this time, he made a short progress towards the English border, courting popularity, and deserving it, by an attention to order and justice.

793 Elizabeth agrees to deliver up Mary to the regent.

Elizabeth, flattered by his submissive advances, and pleased with his ambition, was now disposed to gratify his fullest wishes; and she perceived, that by delivering to him the queen of Scots, she would effectually relieve herself of a prisoner whose vigour and intrigues were a constant interruption to her repose. A treaty for this purpose was entered into and concluded. The regent was to march an army to the English frontiers, and to receive from her his sovereign into her own dominions, the victim of his power, and the sport of his passions. No hostages and no security were stipulated for her entertainment and good usage. His authority over her was to be without any limits. On his part, he was to deliver to Elizabeth the young prince, to put her in possession of the principal forts of Scotland, and to assist her with troops in the event of a war with France. This treaty, so fatal to Mary, and so ruinous to the independence of Scotland, escaped not the vigilance of the bishop of Ross. He complained of it in the strongest terms to Elizabeth; and declared it to be equivalent to a sentence of death against his mistress. The ambassadors of France and Spain were also strenuous in their remonstrances to her on this subject. All resistance, however, was unavailing; and the execution of the treaty seemed inevitable. Yet how vain are the loftiest schemes of human pride! The career of the regent was hastening to its crisis; and the hand of an assassin put a period to his dream of royalty. Scotland did not lose its liberties; but Mary continued to be unfortunate.

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794 Death of the regent. An. 1570.

James Hamilton of Bothwelhaugh, who had been taken prisoner at the battle of Langside, obtained his liberty and life; but his estates were forfeited.—His wife, the heiress of Woodhouslie, retired on this emergency to her paternal inheritance, in the hope that it might escape the rapacity of the regent. He had, however, given it away to one of his favourites, Sir James Ballenden; and the instruments of his power having the inhumanity to strip her of her garments, and to turn her naked out of her house, in a cold and dark night, she became distracted before the morning. Hamilton vowed revenge; and the regent made a mockery of his threats. This contempt inspirited his passions; and the humiliation of the house of Hamilton, to which he was nearly allied, fostered the eagerness of his discontents. The madness of party added fuel to his rage. His mind became reconciled to assassination. After watching for some time a proper opportunity to perpetrate his horrid purpose, he found it at Linlithgow. The regent was to pass through this town on his way from Stirling to Edinburgh. Intimation reached him that Hamilton was now to perpetrate his design; and he unaccountably slighted the intelligence. The assassin, in a house that belonged to the archbishop of St Andrew's, waited deliberately his approach; and firing his musket from a window, shot him through the body. The wound, when examined, was not judged to be mortal; but the regent finding its pain to increase, prepared himself for death; and in a few hours after he expired. A fleet horse of the abbot of Arbroath's carried the assassin to the palace of Hamilton; and thence he soon after effected his escape to France.

The death of the earl of Murray made no favourable alteration in the affairs of Mary. Confusion and disorder prevailed throughout the kingdom; and though the friends of the queen were promised assistance from France, nothing effectual was done for them. At last the regency was conferred on the earl of Lenox; an enemy to the queen, who treated her friends with the utmost rigour. At the same time Elizabeth continued to amuse with negociations her unhappy rival. She granted liberty to the bishop of Ross to repair to the queen of Scots, who had been removed to Chatsworth, and to confer with her on the subject of the intended treaty. Mary, conforming to the advances of Elizabeth, authorized the lord Levingston to pass to her dominions, and desire her friends to appoint a deputation of their number to give their assistance in promoting the salutary purpose of establishing the tranquillity of their country: and after meeting with some interruptions on the English borders from the earl of Sussex, this nobleman successfully executed his commission. The queen's lords gave powers to ten nobles to act in a body, or by two of their number, in the intended negociation: and a safe-conduct from Elizabeth allowed them to enter the English realm, and to remain in it during six months.

795 Lenox chosen to succeed him.

796 Articles of agreement proposed to Mary by Elizabeth. An. 1571.

While the lord Levingston was consulting the interests of Mary with her friends in Scotland, the bishop of Ross was making earnest suit with Elizabeth to proceed in the projected negociation. His solicitations were not ineffectual; and Sir William Cecil and Sir Walter Mildmay received the instructions of their mistress to wait on the queen of Scots at Chatsworth. The heads of accommodation which they proposed were explicit; and the rigour which they discovered towards the Scottish princess seemed to prove their sincerity. It was proposed, that a perfect amity should take place between the two queens; that all the treaties which had formerly been concluded by the two nations should receive an ample confirmation; that the queen of Scotland should ratify the treaty of Edinburgh, and forbear to advance any title or claim to the crown of England during the life of Elizabeth, or to the prejudice of the heirs of her body; that in case of foreign invasions, the two realms should mutually assist each other; that all foreign soldiers should be ordered to depart out of Scotland; that in future, strangers of the profession of arms should be prohibited from repairing to it, and from taking up their residence in any of its castles or houses of strength; that Mary should hold no correspondence, directly or indirectly, with any subject of England, without the permission of the English queen; that the earl of Northumberland, and the English rebels in Scotland, should be delivered up to Elizabeth; that redress should be given to the subjects of England for the spoils taken by them on the Scottish borders; that the murderers of the lord Darnley and the earl of Murray should be duly and effectually punished; that before the queen of Scots should be set at liberty, the young prince her son should be brought into England, and that he should continue in the keeping of Elizabeth till the death of his mother, or till her resignation to him of her crown on his attaining majority; that the queen of Scots should not enter into a negociation for her marriage without the knowledge of the queen of England, nor conclude it without her approbation, or that of the greatest part of the Scottish nobility; that none of the subjects of Scotland should be suffered to go to Ireland without the safe-conduct of Elizabeth; and that Mary should deliver to her sister all the testimonies and writings which had been sent from France, renouncing and disavowing the pretended marriage between her and the duke of Anjou. Besides these articles of agreement, it was proposed by another treaty to adjust the differences of the queen of Scots and her subjects; and Sir William Cecil and Sir Walter Mildmay embraced the present opportunity of conferring with her on this business, under pretence of facilitating its management in the future stages of its progress.

797 Mary is desirous to negociate.

During their stay at Chatsworth, these statesmen were completely satisfied with the behaviour of the queen of Scots. The candour, sincerity, and moderation which she displayed, were full assurances to them that on her part there was no occasion for apprehending any improper policy or art; and the calamities of her condition were a still more secure pledge of her compliance. Elizabeth, on hearing their report, affected to be highly pleased with her sister, and sent a message to the earl of Lenox, instructing him in the conditions which had been submitted to Mary; and desiring him to despatch commissioners into England to deliberate on the treaty, and to consult his interest and that of his faction. Nor did Mary neglect to transmit to her friends in Scotland the proposed terms of agreement; and the bishop of Ross, who had assisted her in the conferences with Sir William Cecil and Sir Walter Mildmay, conveyed intimations of them to the pope, the king of France, and the duke of Alva; besought their advice, and informed these princes, that unless an

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effectual relief could be expected from their favour, the necessities of her condition would compel her to subscribe to the hard and humiliating dictates of the queen of England.

798 The insincerity of Elizabeth.

But while Mary and her friends were indulging the hope of a termination to her troubles, Elizabeth was secretly giving comfort to her adversaries, and encouraging them to throw obstacles in the way of the treaty. Sir William Cecil wrote to the regent, expressing his disapprobation of the negociations at Chatsworth; desiring him not to be apprehensive of the boastings of the adherents of the queen of Scots; and advising him to make choice of commissioners, in the name of the king, on whose constancy and fortitude he could rely, and whom no address could allure from his interest, or from the common cause in which he and his friends were embarked. The earl of Sussex also sent him despatches, in which he admonished him to turn his anxious attention to the approaching negociation, and to insist on secure stipulations for the preservation of the prince, for his own safety, and for a general indemnity to the nobles and their adherents, whose party he had espoused. In every event, he represented it as proper for him to pay the greatest respect to Elizabeth; and, if no treaty should be concluded, he advised him to be prepared for reducing the friends of Mary to obedience, and for defending himself against invasions from abroad. By these artifices, the regent and his faction were inclined to intimate to Elizabeth their warm dissatisfaction with the terms of agreement which she had proposed to Mary; and Pitcairn abbot of Dunfermline, who had been appointed secretary of state in the room of Maitland of Lethington, was deputed to her on this business. He exclaimed against the treaty as wild and impolitic; and contended, that no stipulations could bind Mary, whose religion taught her to keep no faith with heretics; that her claims to the English crown, and her resentment against the queen of England, as well as her own subjects, would immediately on her restoration, involve the two kingdoms in blood; and that no peace or quiet could be expected or enjoyed, but by adhering to the salutary maxim of detaining her in close captivity. Elizabeth did not discourage these inclement sentiments; and Pitcairn was assured by her, that from her natural love to the king, and her regard to the nobles who upheld his authority, she would faithfully provide for their security; and that if justice should appear on their side, she would even strenuously maintain their quarrel and their consequence.

799 Mary's commissioners have an audience of Elizabeth.

Mary had been carried to Sheffield, and was recovering from a feverish indisposition. To this place the bishop of Galloway and the lord Levingston, who had been selected by her friends to be her acting deputies in England, repaired in order to impart to her the state of affairs in Scotland, and to receive her commands. After repeated conferences on the subject of the approaching treaty, she gave them her commission and instructions, and joining them to the bishop of Ross, sent them to Elizabeth. They requested an audience of this princess, and were admitted to it at Hampton-court. Having presented their credentials, they informed her, that they were ready to conclude a treaty of concord and agreement, on principles the most extensive and liberal; and, representing to her the impoverished and tumultuous state of their country, they begged her to proceed in the business with expedition. The orders, they said, which they had received, and their own inclinations, disposed them to follow her advice and counsel in all points which were honourable and consistent with reason; and as her protection was the only refuge of the adversaries of their queen, they took the liberty of observing, that it was completely in her power to put a period to all disturbances and animosity, and to accomplish an accord, which would not only confer on her the highest reputation, but be of the most signal utility to the two kingdoms. Elizabeth declared, that it would please and flatter her in no common degree to advance in the negociation; and that it was painful to her that the regent, by his delay in sending commissioners, should discover any aversion to it. This answer was deemed very favourable by the bishop of Ross and his associates; and they obtained her authority to despatch a messenger to the regent to hasten his operations.

800 The Catholic powers advise Mary to accept of the accommodation.

In the mean time, Mary received despatches from the pope, the king of France, and the duke of Alva; and they concurred in recommending it to her to accept of the articles of accommodation which were offered by Elizabeth. The Turks were giving employment to the pope and the king of Spain; Charles IX. already enfeebled by the obstinate valour of the Huguenots, was busy in deceiving them with appearances of peace, and in plotting their overthrow; and the duke of Alva felt himself insecure in his government of the Netherlands. But while they strongly advised Mary to conclude an agreement with the queen of England, they were yet lavish to her of their expressions of a constant amity; and if the treaty should miscarry, they promised to make the most strenuous exertions in her behalf, and to assist her adherents with money, ammunition, and troops.

801 The regent and his faction attempt to justify the deposition of Mary.

The earl of Morton, the abbot of Dunfermline, and Mr James Macgill, had been appointed by the regent and his faction to be their commissioners in the name of the king; and at length their arrival was announced to Elizabeth. Conforming to the spirit of their party, the earl of Morton and his colleagues took an early opportunity of justifying to her the deposition of the queen of Scots, and by this means to interrupt the progress of the treaty. In an eleborate memorial, they affected to consider Mary as unworthy to reign, and asserted the constitutional power of the people to curb her ambition, and to degrade her from royalty. They endeavoured to intrench themselves within the authority of laws, civil, canon, and municipal; and they recited opinions to her prejudice by many pious divines. But though the general position, that the people have a title to resist the domination of the sovereign is clear and undubitable; yet their application of it to the queen of Scots was improper. To speak of her tyranny, and her violation of the rights of her people, was even a wanton mockery of truth and justice; for instead of having assumed an illegal exorbitancy of power, she had suffered in her own person and rights, and had been treated by her subjects with the most cruel and tyrannical insolence. Elizabeth, who was unwilling and afraid to enter again into the conduct of Mary, who was fully sensible of the insolence of her adversaries, and who did not approve of any maxims that pressed against the majesty of princes, received

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received their memorial with surprise and indignation. She perceived not, she told them, any reason that could vindicate the severity which had been shown to the queen of Scots by her enemies; and advised them to consider, that in the present negociation it was their proper business to consult the security of the king and of their party.

802 Elizabeth's commissioners hold conferences with those of the queen of Scots,

On the part of Elizabeth, the commissioners were the lord-keeper Bacon, the earls of Sussex and Leicester, the lord Clynton, the lord chamberlain, Sir William Cecil, who about this time was created Lord Burleigh, Sir Francis Knollys, Sir James Croft, Sir Water Mildmay, and Sir Thomas Smith. The deputies of Mary were invited to meet the English commissioners in the house of the lord keeper; and after he had stated the general purposes of the treaty, he intimated to them, that there were two points which required a particular discussion. A proper security, he said, ought to be given by the queen of Scots for her due performance of the stipulations of the agreement with Elizabeth; and it was expedient to concert the mode of the pardon and indemnity which she was to extend to the subjects of Scotland who had offended her. As an assurance of the accommodation with his mistress, he demanded that the duke of Chatelherault, the earls of Huntly and Argyle, the lords Hume and Herries, with another person of high rank, should be surrendered to her, and remain in England for three years; that the castles of Dumbarton and Hume should be in her possession during the same period; and as to the article concerning the delivery of the prince into her custody, he observed, that it should be required from the regent, the queen of Scots not having the power of its performance. The deputies of Mary, surprised with this language, entreated the English delegates to reflect, that their queen, if deprived of the most faithful of her nobles, and of her strongest forts, could have little desire or ambition to return to her own kingdom; for she would thus be unable to protect herself against the turbulence of her subjects, and be a sovereign without friends, and without strength. They were inclined, they said, to put their commission and powers to the fullest stretch, in order to gratify Elizabeth; and they would agree, that two earls and two barons should be surrendered for two years, as hostages of the fidelity of their sovereign; under the restriction, that they might be exchanged every six months for persons of an equal condition, if they should be desirous of returning to their own country. As to the giving up of any forts or castles, they would not agree to it, because among the other inconveniences of this measure, similar claims might be made by the king of France, by the spirit of the treaty of Edinburgh, which stipulated, that no French or English troops should be admitted into Scotland. The lord-keeper Bacon, resuming his discourse, told them, that the whole realm of Scotland, its prince, nobles, and castles, were an inadequate pledge to the queen of England; and that, if his advice should be followed, the queen of Scots would not obtain her liberty on any kind of security which could be granted by the Scottish nation. In all public treaties, said the delegates of Mary, no further assurance can be required from a sovereign than what consists with his safety; and when exactions are pressed from a contracting party in a league which are ruinous and impossible, it is understood that a foundation is sought to break off the negociation. The English commissioners, now interfering in a body, declared on their honour, that it was the meaning of Elizabeth to agree to the restoration of the queen of Scots to her crown and realm on receiving sufficient assurances for the articles of the accommodation; that the security offered for her acceptance should be submitted to her deliberation; and that they would immediately proceed to confer with the deputies from the king of Scots.

803 and with the king's deputies.

The English commissioners were not unacquainted with the sentiments of the earl of Morton and his colleagues; and it was from this quarter that they expected a resolute and definitive interruption to the treaty. Nor did these delegates disappoint the expectations conceived of them. After affecting to take a comprehensive view of the articles under debate, they declared, that their commission gave them authority to treat about the amity of the two kingdoms, and the maintenance of the true religion; but that it conferred on them no power to receive their queen into Scotland, or to surrender to Elizabeth the person of their king. They therefore begged not to be urged to accede to a league which, at some future period, might expose them to a charge of high treason.

804 Elizabeth obstructs the treaty.

This singular declaration was considered to be solid and weighty by the English commissioners; and, in a new conference, it was communicated by them to the deputies of Mary. The bishop of Ross and his associates were disgusted with this formal impertinence. They did not hesitate to pronounce the plea of an insufficient commission from the king to his delegates to be an unworthy and most frivolous subterfuge. The authors, they said, of the deposition of their sovereign did not need any authority but their own to set her at liberty; the prince was not yet five years of age, and could give them no instructions; and the regent was wholly dependent on the will and pleasure of the queen of England. It was represented in return by the English delegates, that the commission of King James to his deputies, having been perused by Elizabeth, was accounted by her to be insufficient; and that it was her opinion, that the earl of Morton should return to Scotland to hold a parliament for obtaining new powers. The bishop of Ross exclaimed, that the queen of Scots had been amused with deceitful promises, that the prudence of Elizabeth had been corrupted by partial counsels, and that the allegations and pretences held out for interrupting the negociation were affected and unreal. The instructions, he said, from his sovereign to her commissioners, were to negociate and to conclude, and not to trifle; and they would not by any means consent to protract, by artificial delays, a treaty which the queen of England, if her intentions were sincere and right, could immediately terminate on reasonable and honourable terms. His speech and his demeanour he acknowledged to be free and open; and he besought them to excuse him, since, having been made an instrument to abuse his mistress with false hopes, he could not but resent the indignity, and express what he knew and what he felt. The English deputies, addressing him and his colleagues, observed, that as the friends of Mary, and those of the king her son, could not come to an agreement, and as their queen was refused

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fused the assurance she expected, they held their commission to be at an end, and were no longer at liberty to negociate.

805 The agitated condition of the two queens.

The insincerity of Elizabeth, and the failure of the league or agreement, filled Mary with resentment and complaints. Her animosities, and those of Elizabeth, were increased. She was in haste to communicate to her allies the unworthy treatment she had received; and she sent her commands to her adherents in Scotland to rise in arms, to repose no trust in truces which we prejudical and treacherous, and to employ all their resources and strength in the humiliation of the regent and his faction. Elizabeth, who by this time apprehended no enterprise or danger from Charles IX. or the duke of Alva, resolved, on the other hand, to give a strong and effectual support to James's friends, and to disunite by stratagem, and oppress by power, the partisans of the Scottish princess. The zeal of the bishop of Ross having raised her anger, she commanded him to depart from London; and Mary, in contempt of her mandate, ordered him to remain there under the privilege of her ambassador. The high and unbroken spirit of the Scottish queen, in the midst of her misfortunes, never once awakened the generous admiration of Elizabeth. While it uniformly inflamed her rage, it seems also to have excited her terror. With a pusillanimous meanness, she sent a despatch to the earl of Shrewsbury, instructing him to keep his charge in the closest confinement, and to be incessantly on his guard to prevent her escape. He obeyed, and regretted her severity. The expense, retinue, and domestics, of the queen of Scots, were diminished and reduced, and every probable means by which she might endeavour to obtain her liberty were removed from her. The rigours, however, that invaded her person could not reach her mind; and she pitied the tyrant that could add contumely to oppression, and deny her even the comforts of a prison.

806 Dreadful confusion in Scotland.

All this time Scotland was involved in the miseries of civil war. The friends of Mary were everywhere punished with fines and forfeiture. Private families took the opportunity of the public confusion to revenge their quarrels against each other. Individuals of every denomination ranged themselves on the side either of the regent or of the queen, and took a share in the hostilities of their country. Fathers divided against sons, and sons against their fathers. Acts of outrage and violence were committed in every quarter, while, amidst the general confusion, religion was made the pretence by both parties.

807 The regent taken prisoner, and put to death.

In the mean time, though many encounters took place between the two factions, yet neither party seems to have been conducted by leaders of any skill in military affairs. This year, in one of these skirmishes, the regent himself was taken prisoner by a party of the queen's faction, and put to death. But this event made little alteration in the affairs of the nation. The earl of Mar, another of the queen's enemies, was chosen to the regency; but though he proposed to act against her party with rigour, he was baffled before Edinburgh castle, which was still held by her friends; and some bloody skirmishes were fought in the north, where victory declared in favour of the queen. These advantages, however, were more than compensated to the other party by the following event.

While the negociations with Elizabeth for Mary's restoration were depending, the scheme of a conspiracy for her deliverance was communicated to her by Robert Ridolphi a Florentine, who lived in London for many years as a merchant, and who was secretly an agent for the court of Rome. But to his letters, while the fate of the treaty was uncertain, she returned no reply. Its miscarriage, through the duplicity of Elizabeth, recalled them forcibly to her attention, and stimulated her to seek the accomplishment of her liberty by measures bolder and more arduous than any which she had hitherto employed. She drew up in cipher an ample discourse of his communications and of her situation, and despatched it to the bishop of Ross, together with letters for the duke of Norfolk. Her instructions to this ecclesiastic were to convey the discourse and letters expeditiously to Norfolk, and to concert an interview between that nobleman and Ridolphi. The confidential servants by whom the duke acted with the bishop of Ross were Bannister and Barker; and having received from them the discourse and the letters, they were deciphered by Hickford his secretary. Having considered them maturely, he delivered them to Hickford, with orders to commit them to the flames. His orders, however, were disobeyed; and Hickford deposited them, with other papers of consequence, under the mats of the duke's bedchamber. The contents of the discourse and the letters awakening the hope and ambition of Norfolk, he was impatient to see Ridolphi; and the bishop of Ross soon brought them together. Ridolphi, whose ability was excited by motives of religion and interest, exerted all his eloquence and address to engage the duke to put himself at the head of a rebellion against his sovereign. He represented to him, that there could not be a season more proper than the present for achieving the overthrow of Elizabeth. Many persons who had enjoyed authority and credit under her predecessors were much disgusted; the Catholics were numerous and incensed; the younger sons of the gentry were languishing in poverty and inaction in every quarter of the kingdom; and there were multitudes disposed to insurrection from restlessness, the love of change, and the ardour of enterprise. He insinuated that his rank, popularity, and fortune, enabled him to take the command of such persons with infinite advantage. He insisted on his imprisonment and the outrages he had sustained from Elizabeth; represented the contempt to which he would expose himself by a tame submission to these wrongs; extolled the propriety with which he might give way to his indignation and revenge; and pointed out the glory he might purchase by the humiliation of the enemies, and by the full accomplishment of his marraige with the queen of Scots. To give strength and confirmation to these topics he produced a long list of the names of noblemen and gentlemen with whom he had practised, and whom he affirmed to be ready to hazard their lives and riches for a revolution in the state, if the duke would enter into it with cordiality. To fix decisively the duke, he now opened to him the expectations with which he might flatter himself from abroad. The pope, he assured him, had already provided 100,000 crowns for the enterprise; and if Popery should be advanced in England, he would cheerfully defray the whole charges of the war. The king of Spain would supply 4000 horse and 6000 foot, which might be landed at Harwich. Charles IX. was devotedly attached to the queen of Scots, notwithstanding the treaty which had been entered

808 Norfolk's conspiracy

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ed into with Elizabeth for her marriage with his brother the duke of Anjou: and when he should discover that, on the part of the English princess, this matrimonial scheme was no better than a device or a mockery, he would renounce the appearance of friendship which he had assumed, and return to his natural sentiments, of disdain and hatred, with reboubled violence. In fine, he urged, that while he might depend on the assistance and arms of the greatest princes of Christendom, he would entitle himself to the admiration of all of them by his magnanimous efforts and generous gallantry in the cause of a queen so beautiful and so unfortunate.

809 discovered by the ministers of Elizabeth.

The duke of Norfolk, allured by appearances so plausible and flattering, did not scruple to forget the duties of a subject, and the submissive obligation in which he had bound himself to Elizabeth never more to interfere in the affairs of the Scottish princess. Ridolphi, in this forward state of the business, advised him to address letters to the pope, the king of Spain, and the duke of Alva, expressive of his concurrence in the design, and exciting their activity and resolution. He even produced despatches framed for this purpose; and while he entreated the duke to subscribe them, he offered to carry them himself to Flanders, Rome, and Spain. The duke of Norfolk, who was ambitious and timid, disposed to treason, and unfit for it, hesitated whether he should subscribe the letters; and at length refused to proceed to that extremity. He yet allowed the bishop of Ross, and Barker his servant, to go to the Spanish ambassador to express his approbation of the measures of Ridolphi, to acknowledge that the letters were according to his mind, and to empower this statesman to certify their authenticity to his court. Ridolphi, full of hopes, set out to execute his commission. He passed first to the duke of Alva, to whom he communicated the transactions in which he had been engaged, and with whom he held many conferences. There was at this time at Brussels Charles Bailly, a servant of the queen of Scots; and Ridolphi, after disclosing to him his proceedings with Alva, entrusted him with letters to her, to the duke of Norfolk, the Spanish ambassador, and the bishop of Ross. When this messenger reached Calais, a letter was delivered to him from the bishop of Ross, desiring him to leave his despatches with the governor of that place. From inexperience and vanity he neglected this notice; and being searched at Dover, his letters, books, and clothes, were seized, and he himself sent to London, and imprisoned in the Marshalsea. The bishop of Ross, full of apprehensions, applied to Lord Cobham, the warden of the cinque ports, who was friendly to the duke of Norfolk; and obtaining by his means the packet of despatches from Ridolphi, he substituted another in its place, which contained letters of no danger or usefulness. He had also the dexterity to convey intelligence of this trick to Bailly, and to admonish him to preserve a profound silence, and not to be afraid. This simple and unpractised agent had, however, excited suspicions by the symptoms of terror he had exhibited on being taken, and by exclaiming, that the despatches he brought would involve his own destruction and that of others. At his first examination he confessed nothing; but being sent to the Tower, and put on the rack, he revealed his conversations with Ridolphi, and declared, that the despatches which he had brought had been delivered to the bishop of Ross. An order was granted for taking the bishop into custody. Having been aware, however, of his perilous situation, his house was searched in vain for treasonable papers; and he thought to screen himself from answering any interrogatories under the sanctity of his character as the ambassador of an independent princess.

810 The duke's friends and servants give evidence against him.

An unexpected incident excited, in the mean time, new suspicions and alarms. Mary being desirous of transmitting 2000 crowns to the lord Herries to advance her interests in Scotland, the duke of Norfolk undertook to convey it to him with safety. He intrusted it to the charge of his confidants Hickford and Barker, who putting it into a bag with despatches from their master to Lord Herries, ordered a servant called *Brown* to carry it to Bannister; who, being at this time on the border could forward it to Scotland. Brown, suspicious or corrupted, instead of proceeding on his errand, carried the bag and its contents to Sir William Cecil, now Lord Burleigh. The privy-council, deeming it treason to send money out of the realm for the use of the friends of Mary, whom they affected to consider as enemies, ordered Hickford and Barker to be apprehended. The rack extorted from them whatever they knew to the prejudice of their master. Hickford gave intelligence of the fatal discourse and the letters from Mary, which he had preserved in opposition to the orders given to him. All the proceedings between the queen of Scots, the duke of Norfolk, the bishop of Ross, and Ridolphi, were brought to light. A guard was placed on the house of the duke of Norfolk, in order to prevent his escape. Sir Ralph Sadler, Sir Thomas Smith, Sir Henry Nevil, and Dr Wilson, were commissioned to examine him; and being impressed with the belief that the discourse and the letters had been destroyed, he positively denied that he had any concern in the affairs of the queen of Scots, or any knowledge of them whatever. He was committed to the Tower a close prisoner. Bannister by this time was taken; and he confirmed the relations of Hickford and Barker. In the course of their discoveries, there appeared reasons of suspicion against many persons of rank and distinction. The earls of Arundel and Southampton, the lord Cobham, Mr Thomas Cobham his brother, Sir Thomas Stanley, Sir Henry Percy, and other gentlemen who were friendly to the queen of Scots and the duke of Norfolk, were ordered to be lodged in different prisons; and the rack, and the expectation of a pardon, drew from them the fullest confessions. The duke was altogether unable to defend himself. The concurring testimonies of his friends and servants, with the discourse and the letters, which he fondly imagined had been committed to the flames, were communicated to him. He was overwhelmed with amazement and distress; and exclaimed, that he had been betrayed and undone. He made ample acknowledgments of his guilt, and had no foundation of hope but in the mercy of his sovereign.

811 Dangerous and perplexing condition of Bishop Lesly.

By the confession of the duke himself, and from all the inquiries which had been made by the ministers of Elizabeth, it appeared obvious beyond a doubt, that the bishop of Ross had been the principal contriver of the conspiracy. Ridolphi had acted under his direction, and he had excited the duke of Norfolk. He had even proceeded to the extremity of advising that noble-

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man to put himself at the head of a select band of adherents, and to seize boldly the person of Elizabeth. In his examinations he was treated with great rigour and insult. But he made an able defence, and peremptorily refused to make any answer to interrogatories. The counsellors of Elizabeth were disturbed with his obstinacy; and having certified him, that the rack would soon render him more pliant, he was ordered into close confinement in a dark apartment of the Tower. When he had remained a few days in this melancholy situation, four privy-counsellors, the lord-admiral, the lord Burleigh, Sir Francis Knollys, and Sir Thomas Smith, went to the Tower, and caused him to be brought to them to the lieutenant's lodging. After having assured him that he was charged by all the prisoners as the principal contriver of the conspiracy, they insisted, in the name of their sovereign, that he should explain fully the part he had acted. The confessions of the duke of Norfolk and his servants, of the lord Lumley, Sir Thomas Stanley, and other gentlemen, with the discourse and despatches of the queen of Scots, were set before him. They now protested on their honour, that if he would make a free and open declaration of his proceedings, it should be employed neither against himself, nor against any other person; but that if he should continue to be resolute in refusing to give this satisfaction to their queen, who was anxious to search the matter to the bottom, they were instructed to let him know, that she would absolutely consider him as a private person, and order him to be tried and executed as a traitor. In this extremity he accepted the conditions held out to him, and disclosed minutely all the transactions of the principal parties in the conspiracy. But while he described the offences of his mistress, the duke of Norfolk, and himself, he could not avoid to lessen their blame by apologies. It was natural, he said, for the queen of Scots to exert the most strenuous endeavours in her power to recover her freedom and crown; and the methods she adopted to obtain her purposes ought to be considered in connexion with the arts of Elizabeth, who pertinaciously denied her access to her presence, who kept her a close prisoner in contempt of all the principles of humanity and justice, and who afforded an open and powerful assistance to her enemies. The duke of Norfolk he was earnest to excuse on the foundation of the advances which had been made towards his marriage with the queen of Scots. Their plighted love, and their engagements, did not allow him to forsake her. As for himself, he was her ambassador and her servant; and being highly indebted to her generosity and kindness, he could not abandon her in captivity and distress without incurring the guilt of the most sinful treachery and ingratitude. The daring proposal he had made to seize the person of Elizabeth was the point, he observed, which seemed to press on him the most severely; and he intreated them to believe, that he had moved it only with the view of trying the courage of the duke of Norfolk.—The privy-councillors of Elizabeth were now in possession of all the evidence they could expect in this important business. Norfolk was admonished to prepare for his trial; and Bishop Lesly perceived, that though he might escape with his life, he would never more be permitted to reside in England, and to act there as the ambassador, the minister, and the friend of the queen of Scots.

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812 Mary's affairs ruined by the failure of Norfolk's conspiracy,

The defeat of the duke of Norfolk's conspiracy was a blow to Mary which she never recovered. Her most faithful friends were languishing in prisons on her account; she had no longer the counsels of the bishop of Ross; and the Spanish ambassador, who had entered into her concerns with an unscrupulous cordiality, had been ordered to withdraw from England. The trial and condemnation of Norfolk soon followed, and plunged her into the most calamitous distress.

813 and by the massacre of Paris. An. 1572.

The massacre of the Protestants at Paris in 1572 proved also extremely detrimental to her. It was interpreted to be a consequence of the confederacy which had been formed at Bayonne for the extermination of the reformed. The Protestants were everywhere transported with rage against the Papists. Elizabeth prepared herself against an attack from the Catholic powers; and was haunted with the notion that they meant to invade her kingdom, and to give it to the queen of Scots. Her ambassador at Paris, Sir Francis Walsingham, augmented her apprehensions and terror. He compared her weakness with the strength of her enemies, and assured her that if they should possess themselves of Scotland, she would soon cease to be a queen. He represented Mary as the great cause of the perils that threatened her personal safety and the tranquillity of her kingdom; and as violent diseases required violent remedies, he scrupled not to counsel her to unite Scotland to her dominions, and to put to death a rival whose life was inconsistent with her security. The more bigotted Protestants of Scotland differed not very widely in their sentiments from Sir Francis Walsingham; while such of them as were more moderate were still more attached to their religion than to Mary; and amidst the indignation and horror into which the subjects of Scotland were thrown by the sanguinary outrages of Charles IX. and Catharine de Medicis, they surveyed the sufferings of their sovereign with a diminished sympathy.

814 Walsingham counsels Elizabeth to put Mary to death.

815 The regent dies, and is succeeded by Morton.

This year the regent, finding himself beset with difficulties which he could not overcome, and the affairs of the nation involved in confusion from which he could not extricate them, died of melancholy, and was succeeded by the earl of Morton.

816 Episcopacy introduced into Scotland.

During the regency of the earl of Mar, a remarkable innovation took place in the church, which deserves to be particularly explained, being no less than the introduction of Episcopacy instead of the Presbyterian form of worship. While the earl of Lenox was regent, the archbishop of St Andrew's was put to death, because he was strongly suspected of having had a concern in the death of the earl of Murray; after which the earl of Morton procured a grant of the temporalities of that see. Out of these he allotted a stipend to Mr John Douglas, a Protestant clergyman, who assumed the title of archbishop. This violence excited censure and murmurs. In the language of the times, it was pronounced to be a profanation of the kirk, and a high contempt of God; and it underwent the scrutiny of the ministry in applications and complaints to the regent. The matter was doubtless of too much importance to be overlooked; and a commission of privy-councillors and clergymen was appointed in the name of the king to inquire into it, and to reform and improve the policy of the church. This commission, on the part of the privy-council, consisted of the earl of Morton, the lord Ruthven,

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ven, Robert abbot of Dunfermline, Mr James Macgill, Sir John Ballenden, and Colin Campbell of Glenorchie; and on the part of the church there were named John Erskine of Dun, and Mr John Winram, Mr Hay, Mr Lindsay, Mr Pont, and Mr John Craig. The consultations and debates were long; and the influence and management of the earl of Morton directed their determinations. It was resolved, that till the majority of the king, or till the wisdom of the three estates should be consulted, the titles of archbishop and bishop should continue as in the times which preceded the reformation; and that a chapter of learned ministers should be annexed to every metropolitan or cathedral seat. It was determined that the sees, as they became vacant, should be given to those of the Protestant ministry who were most eminent for their qualifications; that the archbishops and bishops should exercise no higher jurisdiction than what was permitted to superintendants; and that they should be subject to the controul of the general assemblies of the church. It was agreed, that all abbots, priors, and other inferior prelates presented to benefices, should be examined by the bishop or superintendant of the diocese or precinct where the preferment was situated; and that their fitness to represent the church in parliament should be duly inquired into. It was judged that the king and the regent should recommend qualified persons to vacant bishoprics, and that the elections of them should be made by the chapters of the respective cathedrals. It was ordered that all benefices with cure under prelacies should be disposed of only to officiating ministers; that every minister should receive ordination from the bishop of the diocese, or the superintendant of the province; and that the bishops and superintendants, on the ordination of ministers, should exact an oath from them to recognise the authority of the king, and to pay canonical obedience to their ordinary in all things that were lawful.

By these artful regulations the earl of Morton did not mean solely to consult his own rapacity or that of the nobles. The exaltation of the Protestant church to be one of the three estates was a consequence of them; and the clergy being the strenuous enemies of Mary, he might by their means secure a decided influence in parliament. The earl of Mar, as regent, giving his sanction to the proceedings of the commission, they were carried into effect. The delusive expectation of wealth, which this revival of Episcopacy held out to the ministry, was flattering to them; and they bore with tolerable patience this severe blow that was struck against the religious policy of Geneva. Mr John Douglas was desired to give a specimen of his gifts in preaching; and his election took effect, notwithstanding the opposition that was made to it by John Knox and other ecclesiastics, who stood up for the rules and forms which had been established at the reformation. He was inaugurated in his office by the bishop of Caithness, Mr John Spotswood superintendant of Lothian, and Mr David Lindsay, who, violating the book of discipline, communicated to him his character and admission by the imposition of hands. This was a singular triumph to Episcopacy; and the exaltation of Douglas included other peculiarities remarkable and offensive. He denied that he had made any simoniacal agreement with the earl of Morton; yet it was known that the revenues of the archbishopric were almost wholly engrossed by that nobleman. He had promised to resign, upon his instalment, the office of rector which he held in the university of St Andrew's: yet he refused to execute this engagement. He was in a very advanced age; and his mental qualifications, which had never been eminent, were in a state of decay.

A general assembly, which was held at St Andrew's, considering the high moment of the new regulations introduced into the church, appointed commissioners to go to John Knox, who was at this time indisposed, and to consult with him deliberately in his house, whether they were agreeable to the word of God. But from the arts of the nobles, or from the sickness of Knox, it happened that this conference was not carried into effect. In a general assembly, however, which met at Perth, the new polity was reported and examined. The names of archbishop, dean, archdeacon, chancellor, and chapter, were excepted against as Popish distinctions, and as slanderous to the ears of pious Christians. A wish was expressed that they might be exchanged for titles less profane and superstitious; and an unanimous protestation was made, that the new polity was merely a temporary expedient, and should only continue till a more perfect order should be obtained from the king, the regent, and the nobility. This tolerating resolution left the new polity in its full force; and a colourable foundation was now established for the laity to partake in the profits of bishoprics. The simoniacal paction of Morton and Douglas was not long a matter of singularity. Mr James Boyd was appointed to the archbishopric of Glasgow, Mr James Paton to the bishopric of Dunkeld, and Mr Andrew Graham to the see of Dumblain; and these compromising ecclesiastics, on being allowed competencies to themselves, gratified their noble friends with the greatest proportion of their revenues. The virtue of the common people approved not this spirit of traffic; and the bishops of the new polity were treated openly with reproach or with ridicule.

817 Death of John Knox.

The year 1572 is also remarkable for the death of John Knox, whose mistaken zeal had contributed not a little to bring on the queen those misfortunes with which she was now oppressed. Neither by his death, however, nor by the change of the regency, could she now be relieved. The earl of Morton was so much devoted to Elizabeth, that he received particular instructions from her how to govern the young king. His elevation, indeed, gave the finishing stroke to the queen's affairs.

818 Elizabeth resolved on putting Mary to death.

He employed himself with success in dividing her party among themselves, and by his means the duke of Chatelherault and the earl of Huntly were induced to forsake her. As for Elizabeth, she was bent on putting Mary to death; but as no crime could be alleged against her in England, she thought it proper that she should be carried back to suffer death in her own dominions. This proposal, however, was rejected; and the friends who remained true to Mary once more began to indulge themselves in hopes of succours from France.

819 The castle of Edinburgh taken by the English party.

New misfortunes, however, awaited them.—The castle of Edinburgh, which had hitherto been held for the queen by Kirkaldy of Grange, was obliged to surrender to an English army commanded by Sir William Drury. Kirkaldy was solemnly assured by the English commander of his life and liberty; but Elizabeth violated this capitulation, and commanded him to be delivered up to the regent. A hundred of his relations offered to become

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come vassals to Morton, and to pay him 3000 merks yearly, if he would spare his life; but in vain: Kirkaldy and his brother Sir James were hanged at Edinburgh. Maitland of Lethington, who was taken at the same time, was poisoned in the prison house of Leith.

820 Mary treated with greater rigour than ever.

The jealousy of Elizabeth did not diminish with the decline of Mary's cause. She now treated her with more rigour than ever, and patronized Morton in all the enormities which he committed against her friends. Lesly bishop of Ross had been long imprisoned in England, on account of his concern in the duke of Norfolk's conspiracy. Morton earnestly solicited the queen to deliver him up, and would undoubtedly have put him to death; but as he had acted in the character of ambassador from Mary, this was judged impolitic, and the prelate was suffered to depart for France. When he arrived there, he endeavoured in vain to stir up the emperor, the pope, and the duke of Alva, to exert themselves in behalf of the queen of Scotland; and, in 1574, the misfortunes of his royal mistress were farther aggravated by the death of Charles IX. of France, and her uncle the cardinal of Lorraine. The regent, in the mean time, ruled with the most despotic sway. He twice coined base money in the name of his sovereign; and after putting it into circulation the second time, he issued orders for its passing only for its intrinsic value. The duke of Chatelherault happening to die this year, the regent took every method of ruining all those of his name and family. He committed to prison all the Hamiltons, and every person of distinction who had fought for the queen at the battle of Langside, and compelled them to buy their liberty at an exorbitant price. He instigated Douglas of Lochleven to assassinate Lord Arbroath, and it was with difficulty that the latter escaped the ambush that was laid for him. Reid, the bishop of Orkney, having left his estate to pious and charitable uses, the regent prohibited the execution of the will, and took on himself the administration. To be rich was a sufficient crime to excite his vengeance. He entered the warehouses of merchants, and confiscated their property; and if he wanted a pretence to justify his conduct, the judges and lawyers were ready at his call.

An. 1573.

821 Death of Charles IX and the duke of Lorraine.

An. 1574.

822 Oppression and violence of Morton.

823 Opposition to Episcopacy.

In this disastrous period the clergy augmented the general confusion. Mr Andrew Melvil had lately returned from Geneva; and the discipline of its assembly being considered by him as the most perfect model of ecclesiastical polity, he was infinitely offended with the introduction of Episcopacy into Scotland. His learning was considerable, and his skill in languages was profound. He was fond of disputation, hot, violent, and pertinacious. The Scottish clergy were in a humour to attend to him; and his merit was sufficient to excite their admiration. Instigated by his practices, John Drury, one of the ministers of Edinburgh, called in question, in a general assembly, the lawfulness of the bishops and the authority of chapters in electing them. Melvil, after commending his zeal and his motion, declaimed concerning the flourishing state of the establishment of Geneva; and having recited the opinions of Calvin and Beza on ecclesiastical government, maintained, that there should be no office-bearers in the church whose titles were not seen in the book of God. He affirmed, that the term *bishop* was nowhere to be found in it in the sense in which it was commonly understood, as Christ allowed not any superiority among ministers. He contended that Christ was the only lord of his church, and that the ministers of the word were all equal in degree and power. He urged, that the estate of the bishops, besides being unlawful, had grown unseemly with corruptions; and that if they were not removed out of the church, it would fall into decay, and endanger the interests of religion. His sentiments were received with approbation; and though the archbishop of Glasgow, with the bishops of Dunkeld, Galloway, Brechin, Dumblain, and the Isles, were present in this assembly, they ventured not to defend their vocation. It was resolved, that the name of *bishop* conferred no distinction or rank; that the office was not more honourable than that of the other ministers; and that by the word of God their functions consisted in preaching, in administering the sacraments, and in exercising ecclesiastical discipline with the consent of the elders. The Episcopal estate, in the mean time, was watched with anxious care; and the faults and demerits of every kind, which were found in individuals, were charged on the order with rudeness and asperity. In a new assembly this subject was again canvassed. It was moved, whether bishops, as constituted in Scotland, had any authority for their functions from the Scriptures? After long debates, it was thought prudent to avoid an explicit determination of this important question. But a confirmation was bestowed on the resolution of the former assembly; and it was established as a rule, that every bishop should make choice of a particular church within his diocese, and should actually discharge the duties of a minister.

The regent, disturbed with these proceedings of the brethren, was disposed to amuse and to deceive them. He sent a messenger to advise them not to infringe and disfigure the established forms; and to admonish them, that if their aversion to Episcopacy was insurmountable, it would become them to think of some mode of ecclesiastical government to which they could adhere with constancy. The assembly taking advantage of this message, made a formal intimation to him, that they would diligently frame a lasting form of polity, and submit it to the privy-council. They appointed, accordingly, a committee of the brethren for this purpose. The business was too agreeable to be neglected; and in a short time Mr David Lindsay, Mr James Lawson, and Mr Robert Pont, were deputed to wait on the regent with a new scheme of ecclesiastical government. After reminding him, that he had been a notable instrument in purging the realm of Popery, and begging that he would consult with them on any of its articles which he thought improper or incomplete, they informed him, that they did not account it to be a perfect work, to which nothing could be added, or from which nothing could be taken away; for that they would alter and improve it, as the Almighty God might farther reveal his will unto them. The regent, taking from them their schedule, replied, that he would appoint certain persons of the privy-council to confer with them. A conference was even begun on the subject of their new establishment; but from his arts, or from the troubles of the times, no advances were made in it.

824 Death of Bothwel.

This year the earl of Bothwel died in Denmark; and in his last moments, being stung with remorse, he confessed

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confessed that he had been guilty of the king's murder, revealed the names of the persons who were his accomplices, and with the most solemn protestations declared the honour and innocence of the queen. His confession was transmitted to Elizabeth by the king of Denmark; but was suppressed by her with an anxious solicitude. (x)

825 Morton is compelled to resign his office of regent. An. 1577.

The regent still continued his enormities, till having rendered himself obnoxious to the best part of the nobility, he was, in 1577, compelled to resign his office into the hands of James VI.; but as his majesty was then only twelve years of age, a general council of twelve peers was appointed to assist him in the administration. Next year, however, the earl of Merton having found means to gain the favour of the young king, procured the dissolution of this council; and thus being left the sole adviser of the king, he hoped once more to be raised to his former greatness. This could not be done, however, without keeping the king in a kind of captivity, so that nobody could have access to him but himself. The king, sensible of his situation, sent a despatch to the earls of Argyle and Athole, intreating them to relieve him. An army for this purpose was soon raised; and Morton's partisans were in danger of being defeated, had not the opposite party dreaded the vengeance of Elizabeth, who was resolved to support the earl of Morton. In consequence of this a negociation was entered into, by which it was agreed, that the earl of Argyle, with some others, should be admitted into the king's council; and that four noblemen should be chosen by each party to consider of some proper method of preserving tranquillity in the nation.

826 He poisons the earl of Athole.

This pacification did not greatly diminish the power of Morton. He soon got rid of one of his principal antagonists, the earl of Athole, by poisoning him at an entertainment; after which he again gave a loose to his resentments against the house of Hamilton, whom he persecuted in the most cruel manner. By these means, however, he drew on himself a general hatred; and he was supplanted in the king's favour by the lord d'Aubigny, who came from France in the year 1579, and was created earl of Lenox. The next year Morton was suspected of an intention to deliver up the king to Elizabeth, and a guard was appointed to prevent any attempts of this kind. The queen of England endeavoured to support her zealous partisan; but without effect. He was tried, condemned, and executed, as being concerned in the murder of Darnley. At the place of execution, it is said that he confessed his guilt; but of this the evidence is not quite satisfactory. It is however certain that he acknowledged himself privy to the plot formed against the life of the king; and when one of the clergymen attending him before his execution observed, that by his own confession he merited death in foreknowing and concealing the murder, he replied, "Ay but, Sir, had I been as innocent as St Stephen, or as guilty as Judas, I must have come to the scaffold. Pray, what ought I to have done in this matter? You knew not the king's weakness, Sir. If I had informed him of the plot against his life, he would have revealed it even to his enemies and those concerned in the design; and I would, it may be, have lost my own life, for endeavouring to preserve his to no purpose."

An. 1579.

827 Is condemned and executed for the murder of Darnley.

828 Monstrous cruelty of Elizabeth to Mary. An. 1581.

The elevation of King James, and the total overthrow of Morton, produced no beneficial consequences to the unfortunate Mary. In the year 1581, she addressed a letter to Castelnau the French ambassador, in which she complained that her body was so weak, and her limbs so feeble, that she was unable to walk. Castelnau therefore intreated Elizabeth to mitigate a little the rigours of Mary's confinement: which being refused, the latter had thoughts of resigning her claims to the crown both of England and Scotland into the hands of her son, and even of advising him to use every effort in his power to establish his claim to the English crown as preferable to that of Elizabeth. But being apprehensive of danger from this violent method, she again contented herself with sending to the court of England ineffectual memorials and remonstrances. Elizabeth, instead of taking compassion on her miserable situation, assiduously encouraged every kind of disorder in the kingdom, on purpose to have the queen more and more in her power. Thus the Scottish malcontents finding themselves always supported, a conspiracy was at last entered into, the design of which was to hold James in captivity, and to overthrow the authority of Arran and Lenox, who were now the principal persons in the kingdom. The chief actors in this conspiracy were the earls of Gowrie, Mar, and Glencairn, the lords Lindsay and Boyd, with the masters of Glammis and Oliphant. By reason of the youth and imbecility of the king, they easily accomplished their purpose; and having got him in their power, they promised him his liberty, provided he would command Lenox to depart out of the kingdom. This was accordingly done; but the king found himself as much a prisoner as before. The more effectually to detain him in custody, the rebels constrained him to issue a proclamation, wherein he declared himself to be at perfect liberty. Lenox was preparing to advance to the king's relief with a considerable body of forces, when he was disconcerted by the king's peremptory command to leave Scotland; on which he retired to Dumbarton, in order to wait for a more favourable opportunity. The earl of Arran being more forward, was committed to close custody for some time, but afterwards confined only in his house of Kinneil. The rebels took on them the title of "lords for the reformation of the state."

829 The king taken prisoner,

830 which is approved of by the clergy. An. 1582.

The clergy, who had all this time been exceedingly averse to Episcopacy, now gave open countenance to the lords of the reformation. On the 13th of October 1582, they made a solemn act, by which the *raid of Ruthven*, as the capture of the king was called, was deemed a service most acceptable to all who feared God,

 respected

(x) Jebb, vol. ii. p. 227. It has never been published. Keith and other historians have preserved what they call *the earl of Bothwell's declaration at his death*, and account it to be genuine. Their partiality for Mary induced them the more easily to fall into this mistake. The paper they give is demonstratively a forgery; and the want of the real confession of Bothwell is still a deficiency in our history.

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respected the true religion, and were anxious for the preservation of the king and state; and every minister was commanded to declaim from his pulpit on the expediency of this measure, and to exhort the people to concur with the lords in prosecuting the full deliverance of the church, and the perfect reformation of the commonwealth. Not satisfied with this approbation of the clergy, the conspirators got their proceedings approved by the estates of Scotland, as "a good, a thankful, and a necessary service to the king." At the same time it was enacted, that no civil or criminal suit of any kind should ever be instituted against the persons concerned in it. Soon after this, Lenox took his leave of Scotland, and sailed for France, where he died.

831 Mary writes to Elizabeth,

The unfortunate Mary was driven to despair when she heard that her son was taken prisoner by rebels who had been instigated by Elizabeth. In this distress, she addressed a most spirited letter to Elizabeth, in which she at once asserted her own innocence, and set forth the conduct of Elizabeth herself in such language as must have put the most impudent of her adversaries to the blush. Elizabeth could not reply, and therefore had recourse to her usual arts of treacherous negociation. New terms were proposed to Mary, who would gladly have submitted almost to any thing, provided she could procure her freedom. It was proposed, as had often been done before, to associate the queen of Scots with her son in the government; but as this was to be referred to the king, who was in the hands of Elizabeth's friends, and to the parliament, who were under the power of the same faction, it is easy to see that no such association ever could take place, or indeed was ever intended.

832 who acts with her usual perfidy.

After the death of Lenox, the conspirators apprehended no further danger, little supposing that a prince so young and unexperienced could deliver himself from captivity. This, however, in the year 1583, he effected in the following manner. A convention of the estates had been summoned to meet at St Andrew's. James, whom the earl of Arran, notwithstanding his confinement at Kinneil, had found means to instruct and advise, pretended a desire of visiting his grand-uncle the earl of March, who resided at St Andrew's, and was for that purpose permitted to repair thither a few days before the convention. The better to deceive the earls of Gowrie, Angus, and Mar, who attended him, he took up his lodgings in an old inn, which was quite open and defenceless. But having expressed a desire to see the castle of St Andrew's, he was admitted into it; and Colonel Stuart, who commanded the castle, after admitting a few of his retinue, ordered the gates to be shut. The earls of Argyle, Marischal, Montrose, and Rothes, who were in concert with the king, hastened to make him an offer of their swords. The opposite faction, being unprepared for hostilities, were filled with consternation. Of all the conspirators, the earl of Gowrie alone was admitted into the king's presence, by the favour of Colonel Stuart, and received his pardon. The earls of March, Argyle, Gowrie, Marischal, and Rothes, were appointed to be a council for assisting the king in the management of his affairs; and soon after this, James set out for Edinburgh. The king no sooner found himself at liberty, than, by the advice of his privy council, he issued a proclamation of mercy to the conspirators; but they, flattering themselves with the hopes of support from Elizabeth, obstinately refused to accept of his pardon. In consequence of this, they were denounced rebels. Elizabeth failed not to give them secretly all the encouragement she could, and the clergy uttered the most seditious discourses against the king and government; and while they railed against Popery, they themselves maintained openly the very characteristic and distinguishing mark of Popery, namely, that the clerical was entirely independent of the civil power.

An. 1583.

833 The king escapes from captivity.

834 Earl of Gowrie condemned and executed.

At last the rebels broke forth into open hostilities; but by the vigilance of Arran, the earl of Gowrie, who had again begun his treasonable practices, was committed to custody; while the rest, unable to oppose the king, who appeared against them with a formidable army, were obliged to fly into England, where Elizabeth, with her usual treachery, protected them.

The earl of Gowrie suffered as a traitor; but the severity exercised against him did not intimidate the clergy. They still continued their rebellious practices, until the king being informed that they were engaged in a correspondence with some of the fugitive lords, citations were given to their leaders to appear before the privy-council. The clergymen, not daring to appear, fled to England; and on the 20th of May 1584, the king summoned a convention of the estates, on purpose to humble the pride of the church in an effectual manner. In this assembly the raid of Ruthven was declared to be rebellion, according to a declaration which had formerly been made by the king. And, as it had grown into a custom with the promoters of sedition and the enemies of order, to decline the judgment of the king and the council, when called before them to answer for rebellious or contumelious speeches, uttered from the pulpit or in public places, an ordination was made, asserting that they had complete powers to judge concerning persons of every degree and function; and declaring, that every act of opposition to their jurisdiction should be accounted treason. It was enacted, that the authority of parliament, as constituted by the free votes of the three estates, was supreme; and that every attempt to diminish, alter, or infringe, its power, dignity, and jurisdiction, should be punished as treason. All jurisdictions and judgments, all assemblies and conventions, not approved of by the king and the three estates, were condemned as unlawful, and prohibited. It was ordained, that the king might appoint commissioners, with powers to examine into the delinquencies of clergymen, and, if proper, to deprive them of their benefices. It was commanded, that clergymen should not for the future be admitted to the dignity of lords of the session, or to the administration of any judicature civil or criminal. An ordination was made, which subjected to capital punishment all persons who should inquire into the affairs of state with a malicious curiosity, or who should utter false and slanderous speeches in sermons, declamations, or familiar discourse, to the reproach and contempt of the king, his parents, and progenitors. It was ordered that a guard, consisting of 40 gentlemen, with a yearly allowance to each of 200*l.* should continually attend on the king. This parliament, which was full of zeal for the crown, did not overlook the history of Buchanan, which about this time was exciting a very general attention. It commanded, that all persons

835 Proceedings against the clergy. An. 1584.

836 Attempts to suppress Buchanan's history.

persons who were possessed of copies of his chronicle, and of his treatise on the Scottish government, should surrender them within 40 days, under the penalty of 200*l.*, in order that they might be purged of the offensive and extraordinary matters they contained. This stroke of tyranny was furious and ineffectual. Foreign nations, as well as his own countrymen, were filled with the highest admiration of the genius of Buchanan. It was not permitted that his writings should suffer mutilation; they were multiplied in every quarter; and the severity exercised against them only served the more to excite curiosity, and to diffuse his reputation.

837 The clergy endeavour to support themselves against the civil power.

While the parliamentary acts, which struck against the importance of the church, were in agitation, the ministers deputed Mr David Lindsay to solicit the king that no statutes should pass which affected the ecclesiastical establishment, without the consultation of the general assembly. But the earl of Arran having information of this commission, defeated it, by committing Mr Lindsay to prison as a spy for the discontented nobles. On the publication, however, of these acts by the heralds, Mr Robert Pont minister of St Cuthbert's, and one of the senators of the court of session, with Mr Walter Balcanqual, protested formally in the name of the church, that it dissented from them, and that they were consequently invalid. Having made this protestation, they instantly fled, and were proclaimed traitors. By letters and pamphlets, which were artfully spread among the people, their passions were rouzed against the king and his council. The ministers of Edinburgh took the resolution of forsaking their flocks, and retiring to England. And in an apology circulated by their management, they anxiously endeavoured to awaken commiseration and pity. They magnified the dangers which threatened them; and they held out, in vindication of their conduct, the example of the prophets, the apostles, the martyrs, and of Christ himself, who all concurred, they said, in opposing the ordinations of men, when contradictory to the will of heaven, and in declining the rage of the enemies of God. The king appointed his own chaplains and the archbishop of St Andrew's to perform the ministerial functions in his capital. The clergy over Scotland were commanded to subscribe a declaration, which imported the supremacy of the king over the church, and their submission to the authority of the bishops. The national ferments still increased in violence. Many ministers refused to subscribe this declaration, and were deprived of their livings. It was contended, that to make the king supreme over the church was no better than to set up a new pope, and to commit treason against Jesus Christ. It was urged, that to overthrow assemblies and presbyteries, and to give dominion to bishops, was not only to overset the established polity of the church, but to destroy religion itself. For the bishops were the slaves of the court, were schismatical in their opinions, and depraved in their lives. It was affirmed that heresy, atheism, and popery, would strike a deep root, and grow into strength. And the people were taught to believe, that the bishops would corrupt the nation into a resemblance with themselves; and that there everywhere prevailed dissimulation and blasphemy, persecution and obscenity, the profanation of the Scriptures, and the breach of faith, covetousness, perjury, and sacrilege. It was reported abroad, that the ministers alone were entrusted with ecclesiastical functions, and with the sword of the word; and that it was most wicked and profane to imagine, that Jesus Christ had ever committed the keys of the kingdom of heaven to civil magistrates and their servants or deputies.

While the clergy were thus impotently venting their wrath, Elizabeth, alarmed beyond measure at this sudden revolution, and terrified by a confession extorted by the rack from one Francis Throgmorton, concerning a combination of the Catholic princes to invade England, began to treat with Mary in a more sincere manner than usual; but having gained over to her side the earl of Arran, the only man of activity in Scotland, she resolved to proceed to extremities with the queen of Scots. The Catholics, both at home and abroad, were inflamed against her with a boundless and implacable rage. There prevailed many rumours of plots and conspiracies against her kingdom and her life. Books were published, which detailed her cruelties and injustice to Mary in the most indignant language of reproach, and which recommended her assassination as a most meritorious act. The earl of Arran had explained to her the practices of the queen of Scots with her son, and had discovered the intrigues of the Catholic princes to gain him to their views.

838 Intended invasion of England discovered.

While her sensibilities and fears were severely excruciating to her, circumstances happened which confirmed them, and provoked her to give the fullest scope to the malignity of her passions. Crichton, a Scottish Jesuit, passing into his own country, was taken by Netherland pirates; and some papers which he had torn in pieces and thrown into the sea being recovered, were transmitted to England. Sir William Wade put them together with dexterity; and they demonstrated beyond a doubt, that the invasion of England was concerted by the Pope, the king of Spain, and the duke of Guise.

839 Remarkable letter from Mary intercepted by Elizabeth.

About this time, too, a remarkable letter was intercepted from Mary to Sir Francis Englefield. She complained in it that she could have no reliance on the integrity of Elizabeth, and that she expected no happy issue to any treaty which might be opened for her restoration and liberty. She urged the advancement of the "great plot;" she intimated, that the prince her son was favourable to the "designment," and disposed to be directed by her advice; she entreated, that every delicacy with regard to her own state and condition should be laid aside without scruple; and she assured him, that she would most willingly suffer perils and dangers, and even death itself, to give relief to the oppressed children of the church. These discoveries, so exasperating to the inquietudes and distresses of Elizabeth, were followed by a deep and general consternation. The terror of an invasion spread itself with rapidity over England; and the Protestants, while they trembled for the life of their champion, were still more alarmed with the dangers which threatened their religion.

In this state of perplexity and distraction, the counsellors of Elizabeth did not forget that they had been her instruments in persecuting the queen of Scots, and of the severities with which she had treated the Catholics. They were fully sensible, that her greatness and safety were intimately connected with their own; and they concurred in indulging her fears, jealousies, and resentment.

840 Her death resolved on.

It was resolved that Mary should perish. An association was formed, to which persons of every condition

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dition and degree were invited. The professed business of this association was the preservation of the life of Elizabeth, which it was affirmed was in danger, from a conspiracy to advance some pretended title to the crown; and its members vowed and protested, by the majesty of God, to employ their whole power, their bodies, lives, and goods, in her service; to withstand, as well by force of arms as by other methods of revenge, all persons, of whatever nation or rank, who should attempt in any form to invade and injure her safety or her life, and never to desist from the forcible pursuit of them till they should be completely exterminated. They also vowed and protested, in the presence of the eternal God, to prosecute to destruction any pretended successor, by whom, or for whom, the detestable deed of the assassination of Elizabeth should be attempted or committed. The earl of Leicester was in a particular manner the patron of this association; and the whole influence of Elizabeth and her ministers was exerted to multiply the subscription to a bond or league which was to prepare the way, and to be a foundation for accomplishing the full destruction and ruin of the Scottish queen.

A combination so resolute and so fierce, which pointed at the death of Mary, which threatened her titles to the crown of England, and which might defeat the succession of her son, could not fail to excite in her bosom the bitterest anxieties and perturbation. Weary of her sad and long captivity, broken down with calamities, dreading afflictions still more cruel, and willing to take away from Elizabeth every possible pretext of severity, she now framed a scheme of accommodation, to which no reasonable objection could be made. By Naw, her secretary, she presented it to Elizabeth and her privy-council. She protested in it, that if her liberty should be granted to her, she would enter into the closest amity with Elizabeth, and pay an observance to her above every other prince of Christendom; that she would forget all the injuries with which she had been loaded, acknowledge Elizabeth to be the rightful queen of England, abstain from any claim to her crown during her life, renounce the title and arms of England, which she had usurped by the command of her husband the king of France, and reprobate the bull from Rome which had deposed the English queen. She likewise protested, that she would enter into the association which had been formed for the security of Elizabeth; and that she would conclude with her a defensive league, provided that it should not be prejudicial to the ancient alliance between Scotland and France; and that nothing should be done during the life of the English queen, or after her death, to invalidate her titles to the crown of England, or those of her son. As a confirmation of these articles, she professed that she would consent to stay in England for some time as an hostage; and that if she was permitted to retire from the dominions of Elizabeth, she would surrender proper and acceptable persons as sureties. She also protested, that she would make no alterations in Scotland; and that, on the repeal of what had been enacted there to her disgrace, she would bury in oblivion all the injuries she had received from her subjects; that she would recommend to the king her son those counsellors who were most attached to England, and that she would employ herself to reconcile him to the fugitive nobles; that she would take no steps respecting his marriage without acquainting the queen of England; and that, to give the greater firmness to the proposed accommodation, it was her desire that he should be called as a party: and, in fine, she affirmed, that she would procure the king of France and the princes of Lorraine to be guarantees for the performance of her engagements. Elizabeth, who was skilful in hypocrisy, discovered the most decisive symptoms of satisfaction and joy when these overtures were communicated to her. She made no advances, however, to conclude an accommodation with Mary; and her ministers and courtiers exclaimed against lenient and pacific measures. It was loudly insisted, that the liberty of Mary would be the death of Elizabeth; that her association with her son would be the ruin both of England and Scotland; and that her elevation to power would extend the empire of Popery, and give a deadly blow to the doctrines of the Reformation.

841 She proposes a scheme of accommodation.

842 Hypocrisy and treachery of Elizabeth.

In the mean time, an act of attainder had passed against the fugitive nobles, and their estates and honours were forfeited to the king; who, not satisfied with this, sent Patrick master of Gray, to demand from the queen of England a surrender of their persons. As this ambassador had resided for some time in France, and been intimate with the duke of Guise, he was recommended to Mary: but being a man of no principle, he easily suffered himself to be corrupted by Elizabeth; and while he pretended friendship to the unfortunate queen, he discovered all that he knew of her intentions and those of her son. The most scandalous falschoods were forged against Mary; and the less she was apparently able to execute, the more she was said to design. That an unhappy woman, confined and guarded with the utmost vigilance, who had not for many years sufficient interest to procure a decent treatment for herself, should be able to carry on such close and powerful negociations with different princes as were imputed to her, is an absurdity which it must for ever be impossible to explain. That she had an amour with her keeper the earl of Shrewsbury, as was now reported, might be; though of this there is no proof. This, however, could scarcely be treason against Elizabeth: yet, on account of this, Mary was committed to the charge of Sir Amias Paulet and Sir Drue Drury, zealous puritans, and who, it was hoped, would treat her with such severity as might drive her to despair, and induce her to commit some rash action.—The earl of Leicester, said to be Elizabeth's paramour, even ventured to send assassins, on purpose, by the murder of Mary, at once to deliver his mistress from her fears. But the new keepers of the castle, though religious bigots, were men of strict probity, and rejected with scorn such an infamous transaction. In 1585, Mary began to feel all the rigours of a severe imprisonment. She had been removed from Sheffield to the castle of Tutbury; and under her new keepers she experienced a treatment which was in the highest degree unjust, disrespectful, and acrimonious. Two apartments or chambers only were allotted to her, and they were small and inconvenient, meanly furnished, and so full of apertures and chinks, that they could not protect her against the inclemencies of the weather. The liberty of going abroad for pleasure or exercise was denied to her. She was assailed by rheumatisms and other maladies; and her physician would not undertake to effect a cure, or even to procure her any ease, unless she

843 False reports raised against the queen of Scots.

844 Assassins sent to murder her. An. 1585.

845 She is confined, and cruelly treated.

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she should be removed to a more commodious dwelling. Applications for this purpose were frequently made, and uniformly rejected. Here, however, her own afflictions did not extinguish in her mind her sensibility for the misfortunes of others; and she often indulged herself in the satisfaction of employing a servant to go through the village of Tutbury in search of objects of distress, to whom she might deal out her charity. But her inhuman keepers, envying her this pleasure, commanded her to abstain from it. Imputing their rigour to a suspicious fidelity, she desired that her servant might, on these occasions, be accompanied by one of the soldiers of their guard, or by the constable of the village. But they would not alter their prohibition. They refused to her the exercise of the Christian duty of dispensing an alms; and they would not allow her the soft consolation of moistening her eye with sorrows not her own. To insult her the more, the castle of Tutbury was converted into a common jail. A young man, whose crime was the profession of the Romish religion, was committed to a chamber which was opposite to her window, in order that he might be persecuted in her sight with the greatest cruelty. Notwithstanding his cries and resistance, he was dragged every morning to hear prayers, and to join in the Protestant worship; and after enduring several weeks this extraordinary violence to his conscience, he was unmercifully strangled without any form of law or justice. Mary remonstrated with warmth to Elizabeth against indignities so shocking and so horrible; but instead of obtaining consolation or relief, she was involved more deeply in woe, and exposed to still severer inventions of malice and of anger.

846 Elizabeth sows dissensions between Mary and her son.

In the midst of her misfortunes, Mary had still solaced herself with hope; and from the exertions of her son she naturally expected the greatest advantage. He had hitherto behaved with a becoming cordiality; and in the negociation which she had opened with him for her association in the government, he had been studious to please and flatter her. He had informed her, by a particular despatch, that he found the greatest comfort in her maternal tenderness, and that he would accomplish her commands with humility and expedition; that he would not fail to ratify her union and association with him in the government; that it would be his most earnest endeavour to reconcile their common subjects to that measure; and that she might expect from him, during his life, every satisfaction and duty which a good mother could promise to herself from an affectionate and obedient son. But these fair blossoms of kindness and love were all blasted by the treacherous arts of Elizabeth. By the master of Gray, who had obtained an ascendant over James, she turned from Mary his affections. He delayed to ratify her association in the government; and he even appeared to be unwilling to urge Elizabeth on the subject of her liberty. The master of Gray had convinced him, that if any favour were shown to Mary by the queen of England, it would terminate in his humiliation. He assured him, that if his mother were again to mount the Scottish throne, her zeal for Popery would induce her to seek a husband in the house of Austria; that she would dissolve his association with her in the government, on pretence of his attachment to the reformed doctrines; and that he would not only lose the glory of his present power, but endanger his prospects of succession. Mary expostulated with him by letter on the timidity and coldness of his behaviour, and he returned her an answer full of disrespect, in which he intimated his resolution to consider her in no other character than as queen mother. Her amazement, indignation, and grief, were infinite. She wrote to Castelnau the French ambassador to inform him of her inquietudes and anguish. "My son (said she) is ungrateful; and I desire that the king your master may consider him no longer as a sovereign. In your future despatches, abstain from giving him the title of king. I am his queen and his sovereign; and while I live and continue at variance with him, he can at most be only an usurper. From him I derive no lustre; and without me he could only have been Lord Darnley or the earl of Lenox; for I raised his father from being my subject to be my husband. I ask from him nothing that is his; what I claim is my own; and if he persists in his course of impiety and ingratitude, I will bestow on him my malediction, and deprive him not only of all right to Scotland, but of all the dignity and grandeur to which he might succeed through me. My enemies shall not enjoy the advantages they expect from him. For to the king of Spain I will convey, in the amplest form, my claims, titles, and greatness."

Elizabeth having thus found means to sow dissension between the queen of Scots and her son, did not fail to make the best use of the quarrel for her own advantage. The pope, the duke of Guise, and the king of Spain, had concluded an alliance, called the *holy league*, for the extirpation of the Protestant religion all over Europe. Elizabeth was thrown into the greatest consternation on this account; and the idea of a counter association among the Protestant princes of Europe immediately suggested itself. Sir Edward Wotton was deputed to Scotland; and so completely gained on the imbecility of James, that he concluded a firm alliance with Elizabeth, without making any stipulation in favour of his mother. Nay, so far was he the dupe of this ambassador and his mistress, that he allowed himself to be persuaded to take into his favour Mr Archibald Douglas, one of the murderers of Lord Darnley; and, as if all this had not been sufficient, he appointed the assassin to be his ambassador to England.

847 Alliance of the Popish powers against Elizabeth.

848 Mean and shameful behaviour of James.

Mary, thus abandoned by all the world, in the hands of her most inveterate and cruel enemy, fell a victim to her resentment and treachery in the year 1587. A plot of assassination had been formed in the spring of the year 1586 against the English queen; partly with the view of rescuing the Scottish princess; but chiefly from a motive to serve the interests of the Catholic religion. This conspiracy, which originated with Catholic priests and persons of no distinction, was soon imparted to Mr Babington, a person of great fortune, of many accomplishments, and who had before that time discovered himself to be the zealous friend of Queen Mary. That she had corresponded with Babington there is no doubt; but it was some years previous to the formation of the plot. A long silence had taken place between them; and Morgan, one of the English fugitives in France, and a warm friend of Mary's, in the month of May 1586, wrote a letter to her, repeatedly and in the most pressing manner recommending a revival of that correspondence. In consequence of which, in her answer to Morgan,

849 Account of Babington's conspiracy against Elizabeth. An. 1587.

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Morgan, dated the 27th day of July, she informed him that she had made every apology in her power to Babington, for not having written to him for so long a space; that he had generously offered himself and all his fortune in her cause; and that, agreeably to Morgan's advice, she would do her best to retain him in her interests; but she throws out no hint of her knowledge of the intended assassination. On the very same day she likewise wrote to Paget, another of her most confidential friends; but not a word in it with respect to Babingtons's scheme of cutting off the English queen. To Morgan and to Paget she certainly would have communicated her mind, more readily and more particularly than to Babington, and have consulted them about the plot, had she been accessory to it. Indeed it seems to have been part of the policy of Mary's friends to keep her a stranger to all clandestine and hazardous undertakings in her favour. To be convinced of this, we have only to recollect, that Morgan, in a letter of the fourth of July, expressly, and in the strongest terms, recommended to have no intelligence at all with Ballard, * who was one of the original contrivers of the plot, and who was the very person who communicated it to Babington. The queen, in consequence of this, shut the door against all correspondence, if it should be offered, with that person. † At the same time, Morgan assigned no particular reasons for that advice; so cautious was he of giving the queen any information on the subject: What he said was generally and studiously obscure: "Ballard (said he, only) is intent on some matters of consequence, the issue of which is uncertain." He even went farther, and charged Ballard himself to abstain by all means from opening his views to the queen of Scots.

* *Murdin*, 527.

† *Ibid.* 534.

The conspiracy which goes under the name of *Babington* was completely detected by the court in the month of June: The names, proceedings, and residences, of those engaged in it were then known: The blow might have been soon struck: The life of Elizabeth was in imminent danger. The conspirators, however, were not apprehended; they were permitted to enjoy complete liberty; treated as if there were not the least suspicion against them; and in this free and quiet state, were they suffered to continue till the beginning of August, for a period of nearly two months. What could be the reasons for such a conduct? From what causes did the council of England suspend the just vengeance of the laws, and leave their queen's life still in jeopardy? Was it on purpose to procure more conspirators, and involve others in the crime?

Mary queen of Scots continued still detached from Babington and his associates. Their destruction was a small matter compared with her's. Could she be decoyed into the plot, things would have put on a very different aspect. Babington's conspiracy, which in reality occasioned little dread, as it was early found out, and well guarded against, would prove one of the most grateful incidents in Queen Elizabeth's reign. Elizabeth's ministers, too, knew how much they had rendered themselves justly obnoxious to the Scottish princess: Should she come to mount the throne of England, their downfal was inevitable; from which, it should seem, is to be explained, why they were even more zealous than their mistress to accomplish her ruin.

8.50 Art and treachery of Elizabeth and her ministers.

Of these, Sir Francis Walsingham secretary of state appears to have taken on himself the chief management in concerting a plan of operations against the queen of Scots; and as a model, he seems to have had in his eye that which was pursued on a former occasion by the earl of Murray. His spies having early got into the confidence of the lower sort of the conspirators, he now employed the very agency of the latter for his purposes. Learning that a packet from France was intended to be conveyed by them to Queen Mary, and by the hands of one Gilbert Gifford a priest, whom he had secretly gained over from their association, he wrote a letter to Sir Amias Paulet, who had now the custody of the Scottish queen, requesting that one of his domestics might be permitted to take a bribe for conveying that packet to the captive princess. This was on purpose to communicate to her a letter forged in the name of Babington, in which that conspirator was made to impart to the Scottish queen his scheme of assassination, and to claim rewards to the perpetrators of the deed. Paulet, however, to his honour, refused to comply with the request of Walsingham; on which Gifford corrupted a brewer in the neighbourhood, who put his letters to Mary in a hole in the castle-wall. By the same conveyance it was thought that Mary would answer the letters; but it appears that she never saw them, and that of course no return was made. (y) It was then contrived that answers, in the name of the queen of Scots to Gifford, should be found in the hole of the wall. Walsingham, to whom these letters were carried, proceeded formally to decipher them by the help of one Thomas Philips, a person skilled in these matters; and after exact copies were taken of them, it is said that they were all artfully sealed and sent off to the persons to whom they were directed. It appears, however, that only the letters directed to Babington were sent to him; and the answers which he made to the queen's supposed letters were carried directly to Walsingham. A foundation for criminating Mary being thus laid, the conspirators were quickly discovered, as being already known,

(y) Dr Robertson of Dalmeny, who, in his history of Mary queen of Scots, has thrown much light on those dark transactions of Elizabeth's nefarious ministers, thinks it not improbable that an answer to Babington's letter was written by the Scottish queen's secretaries. Although they could not communicate that letter to herself, on account of her known abhorrence of assassination, they perhaps wrote a despatch in her name, approving of it; tempted by the prospect of escaping from imprisonment, and of their mistress being seated on the throne of England. This despatch being conveyed through the same chink of the wall, was carried by Gifford to Walsingham; opened; deciphered, and copied by him; and then sent to Babington. Camden informs us, that Walsingham artfully forged a postscript in the same cipher to this despatch; in which Queen Mary was made to request of Babington to inform her particularly of the names of his accomplices, and of others who were friends to the cause.

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851 Mary is charged with the conspiracy.

known, and suffered the death of traitors. The unhappy princess, eagerly watched by Paulet, and unacquainted with the late occurrence, received a visit from Sir Thomas Gorges. This envoy, as instructed by Elizabeth, surprised her when she had mounted her horse to take the pleasure of the chase. His salutation was abrupt and unceremonious; and after informing her of the discovery and circumstances of the conspiracy of Babington, he rudely charged her with a concern in it. Her astonishment was great, and she desired to return to her chamber; but this favour was refused to her; and after being carried from one house to another, in an anxious and perplexing uncertainty, she was committed to Fotheringay castle in Northamptonshire. Naw and Curl, her two secretaries, the former a Frenchman, the latter a native of Scotland, were taken into custody. Paulet, breaking open the doors of her private closet, possessed himself of her money, which amounted to not more than 7000 crowns. Her cabinets were carefully sealed up; and being sent to London, were examined in the presence of Elizabeth. They contained many despatches from persons beyond the sea, copies of letters which had been dictated by her, and about 60 tables of ciphers and characters. There were also discovered in them many despatches to her from English noblemen, which were full of admiration and respect. These Elizabeth concealed; but their authors suspecting that they were known, sought to purchase her forgiveness by the most abject protestations of an attachment to her person, and by the exercise of the most inveterate enmity to the queen of Scots. Naw and Curl declared, that the copies of her letters were in their handwriting. They had been dictated by her in the French language to Naw, translated into English by Curl, and then put into cipher. They contained not, however, any matters with which she could be reproached or criminated. It was on the foundation of the letters which Gifford had communicated to Walsingham that her guilt was to be inferred: and with copies of these, and with an attested account of the conspiracy of Babington and his associates, Sir Edward Wotton was now despatchsd into France to accuse her to Henry III. and to explain to him the dangers to which Elizabeth was exposed from the machinations and practices of the English exiles.

852 Deliberations on the method of proceeding against her.

The privy counsellors of Elizabeth deliberated on the most proper method of proceeding against Mary. To some it appeared, that as she was only accessory to the plot, and not the designer of it, the most eligible severity to be exercised against her was a closer and more rigorous confinement; and they endeavoured to fortify this opinion, by observing, that she was sickly, and could not live long. By others who were haunted by the terrors of Popery, it was urged, that she ought to be put instantly to death by the formalities of the law. The earl of Leicester recommended it as most prudent to dispatch her secretly by poison. But this counsel was rejected, as mean, disgraceful, and violent. The lawyers were of opinion, that she might be tried on the statute of Edward III.; by which it was enacted to be treason to imagine the destruction of the sovereign, to make war against his kingdom, or to adhere to his enemies. Elizabeth, however, and her ministers had provided a more plausible foundation for her trial. This was a parliamentary statute approving the act of association. As it had been passed while Mary was in England, it was argued, that she was bound by it in a local allegiance to Elizabeth. The next point of debate was the designation under which it was most advisable to arraign her. To employ a foreign name and title as directly descriptive of her, was not judged to be consistent with the law of England. It was therefore resolved to design her "Mary, daughter and heir of James V. king of Scotland, and commonly called queen of Scots, and dowager of France."

853 Commissioners appointed to try her.

This resolution being once taken, Elizabeth next appointed above forty peers or privy counsellors, and five judges, bestowing on them in a body, or on the greater part of them, absolute power and authority to inquire into the matters compassed and imagined against her by the Scottish princess, and to pass sentence according to the spirit and tenor of the act which had been passed. Of these commissioners a great majority proceeded to the castle of Fotheringay; and the day after their arrival, they deputed to Mary, Sir Walter Mildmay, Sir Amias Paulet, and Edward Barker, a public notary, to deliver to her a letter from Elizabeth. In this letter the English queen gratified her unhappy passions, and, after reproaching Mary with her crimes, informed her that commissioners were appointed to take cognisance of them. The Scottish princess, though astonished with the project of being brought to a public trial, was able to preserve her dignity, and addressed them with a composed manner and air. "It is a matter (said she) altogether uncommon and strange, that Elizabeth should command me to submit to a trial, as if I were her subject. I am an independent sovereign, and will not tarnish by any meanness my high birth, the princes my predecessors, and my son. Misfortunes and misery have not yet so involved me in dejection, as that I am to faint and sink under this new calamity and insult. I desire that you will remember what I formerly protested to Bromley, who is now lord chancellor, and to the lord La War. To speak to me of commissioners is a vain mockery of my rank. Kings alone can be my peers. The laws of England are unknown to me; and I have no counsellors to whose wisdom I can apply for instruction. My papers and commentaries have been taken from me; and no person can have the courage to appear as my advocate. I have indeed recommended myself and my condition to foreign princes; but I am clear of the guilt of having conspired the destruction of Elizabeth, or of having incited any person whatever to destroy her. It is only by my own words and writings that an imputation of this kind can be supported; and I am conscious beyond the possibility of a doubt, that these evidences cannot be employed against me." The day after she had in this manner refused to allow the jurisdiction of the commissioners, Paulet and Barker returned to her, and informed her that they had put her speech into writing, and desired to know if she would abide by it. She heard it read distinctly, acknowledged it to be rightly taken, and avowed her readiness to persist in the sentiments she had delivered. But she added, there was a circumstance of which she had omitted to speak. "Your queen (aid she) affects in her letter to observe, that I am subject to the laws of England, because I have lived under their protection. This sentiment and mode of thinking are very surprising to me. I came into England to crave her assistance and aid; and ever since, I have been confined to a prison. The miseries of

854 She objects to their jurisdiction.

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captivity cannot be called a protection, and the treatment I have suffered is a violation of all law."

This afflicted but undaunted princess, after having thus scorned the competency and repelled the pretexts of the commissioners, was induced at last, by arguments under the insidious mask of candour and friendship, to depart from the proper and dignified ground which she had taken, and consent to that mode of trial which had been proposed. It was represented to her by Hatton the vice-chamberlain, that by rejecting a trial, she injured her own reputation and interests, and deprived herself of the only opportunity of setting her innocence in a clear light to the present and to future times. Imposed on by this artifice, she consented to make her appearance before the judges; at the same time, however, she still protested against the jurisdiction of the court, and the validity of all their proceedings.

855 The accusation is preferred against her.

After various formalities, the lord-chancellor opened the case; and was followed by Sergeant Gawdry, who proceeded to explain the above statute, and endeavoured to demonstrate that she had offended against it. He then entered into a detail of Babington's conspiracy; and concluded with affirming, "That Mary knew it, had approved of it, had promised her assistance, and had pointed out the means to effect it." Proofs of this charge were exhibited against her, and displayed with great art. The letters were read which Sir Francis Walsingham had forged, in concert with Gifford, &c. and her secretaries Naw and Curl. The three spies had afforded all the necessary intelligence respecting the conspiracy, on which to frame a correspondence between Mary and Babington, and on which despatches might be fabricated in her name to her foreign friends; and the ciphers were furnished by her two secretaries. But besides these pretended letters, another species of evidence was held out against her. Babington, proud of the despatch sent to him in her name by Walsingham and Gifford, returned an answer to it; and a reply from her by the same agency was transmitted to him. Deluded and in toils, he communicated these marks of her attention to Savage and Ballard, the most confidential of his associates. His confession and theirs thus became of importance. Nor were her letters and the confessions of these conspirators deemed sufficient vouchers of her guilt. Her two secretaries, therefore, who had lately forsaken her, were engaged to subscribe a declaration, that the despatches in her name were written by them at her command, and according to her instructions. These branches of evidence, put together with skill, and heightened with all the imposing colours of eloquence, were pressed on Mary. Though she had been long accustomed to the perfidious inhumanity of her enemies, her amazement was infinite. She lost not, however, her courage, and her defence was alike expressive of her penetration and magnanimity.

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856 Mary's defence.

"The accusation preferred to my prejudice is a most detestable calumny. I was not engaged with Babington in his conspiracy; and I am altogether innocent of having plotted the death of Elizabeth. The copies of Babington's letters which have been produced, may indeed be taken from originals which are genuine; but it is impossible to prove that I ever received them. Nor did he receive from me the despatches addressed to him in my name. His confession and those of his associates, which have been urged to establish the authority of my letters to him, are imperfect and vain. If these conspirators could have testified any circumstances to my hurt, they would not so soon have been deprived of their lives. Tortures, or the fear of the rack, extorted improper confessions from them; and then they were executed. Their mouths were opened to utter false criminations; and were immediately shut for ever, that the truth might be buried in their graves. It was no difficult matter to obtain ciphers which I had employed; and my adversaries are known to be superior to scruples. I am informed that Sir Francis Walsingham has been earnest to recommend himself to his sovereign by practices both against my life and that of my son; and the fabrication of papers by which to effectuate my ruin, is a business not unworthy of his ambition. An evidence, the most clear and incontestable, is necessary to overthrow my integrity; but proofs, the most feeble and suspicious, are held out against me. Let one letter be exhibited, written in my hand, or that bears my superscription, and I will instantly acknowledge that the charge against me is sufficiently supported. The declaration of my secretaries is the effect of rewards or of terror. They are strangers; and to overcome their virtue was an easy achievement to a queen whose power is absolute, whose riches are immense, and whose ministers are profound and daring in intrigues and treachery. I have often had occasion to suspect the integrity of Naw; and Curl, whose capacity is more limited, was always most obsequious to him. They may have written many letters in my name without my knowledge or participation; and it is not fit that I should bear the blame of their inconsiderate holdness. They may have put many things into despatches which are prejudicial to Elizabeth; and they may even have subscribed their declaration to my prejudice, under the prepossession that the guilt which would utterly overwhelm them might be pardoned in me. I have never dictated any letter to them which can be made to correspond with their testimony. And what, let me ask, would become of the grandeur, the virtue, and the safety of princes, if they depended upon the writings and declarations of secretaries? Nor let it be forgotten, that by acting in hostility to the duty and allegiance which they solemnly swore to observe to me, they have utterly incapacitated themselves from obtaining any credit. The violation of their oath of fidelity is an open perjury; and of such men the protestations are nothing. But, if they are yet in life, let them be brought before me. The matters they declare are so important as to require that they should be examined in my presence. It argues not the fairness of the proceedings against me, that this formality is neglected. I am also without the assistance of an advocate; and, that I might be defenceless and weak in the greatest degree, I have been robbed of my papers and commentaries. As to the copies of the despatches which are said to have been written by my direction to Mendoza, the lord Paget, Charles Paget, the archbishop of Glasgow, and Sir Francis Inglefield, they are most unprofitable forgeries. For they tend only to show that I was employed in encouraging my friends to invade England. Now, if I should allow that these despatches were genuine, it could not be inferred from them that I had conspired the death of Elizabeth. I will even confess, that I have yielded to the strong impulses of nature; and that, like a human creature encompassed with

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with dangers, and insulted with wrongs, I have exerted myself to recover my greatness and my liberty. The efforts I have made can excite no blushes in me; for the voice of mankind must applaud them. Religion, in her sternest moments of severity, cannot look to them with reproach; and to consider them as crimes, is to despise the sanctimonious reverence of humanity, and to give way to the suspicious wretchedness of despotism. I have sought by every art of concession and friendship to engage my sister to put a period to my sufferings. Invited by her smiles, I ventured into her kingdom, in the pride and gaiety of my youth; and, under her anger and the miseries of captivity, I have grown into age. During a calamitous confinement of 20 years, my youth, my health, my happiness, are for ever gone. To her tenderness and generosity I have been indebted as little as to her justice: and, oppressed and agonizing with unmerited afflictions and hardships, I scrupled not to beseech the princes my allies to employ their armies to relieve me. Nor will I deny, that I have endeavoured to promote the advantage and interest of the persecuted Catholics of England. My entreaties in their behalf have been even offered with earnestness to Queen Elizabeth herself. But the attainment of my kingdom, the recovery of my liberty, and the advancement of that religion which I love, could not induce me to stain myself with the crimes that are objected to me. I would disdain to purchase a crown by the assassination of the meanest of the human race. To accuse me of scheming the death of the queen, my sister, is to brand me with the infamy which I abhor most. It is my nature to employ the devotions of Esther, and not the sword of Judith. Elizabeth herself will attest, that I have often admonished her not to draw upon her head the resentment of my friends by the enormity of her cruelties to me. My innocence cannot sincerely be doubted; and it is known to the Almighty God, that I could not possibly think to forego his mercy, and to ruin my soul, in order to compass a transgression so horrible as that of her murder. But amidst the inclement and unprincipled pretences which my adversaries are pleased to invent to overwhelm me with calamities and anguish, I can trace and discover with ease the real causes of their hostility and provocation. My crimes are, my birth, the injuries I have been compelled to endure, and my religion. I am proud of the first; I can forgive the second; and the third is a source to me of such comfort and hope, that for its glory I will be contented that my blood shall flow upon the scaffold."

To the defence of Mary, no returns were made beside unsupported affirmation of the truth of the evidence produced to her prejudice. In the course of the trial, however, there occurred some incidents which deserve to be related. My lord Burleigh, who was willing to discompose her, charged her with the fixed resolution of conveying her claims and titles to England to the king of Spain. But though, in a discontented humour with her son, she had threatened to disinherit him, and had even corresponded on the subject with her select friends, it appears that this project is to be considered as only a transient effect of resentment and passion. She indeed acknowledged, that the Spanish king professed to have pretensions to the kingdom of England, and that a book in justification of them had been communicated to her. She declared, however, that she had incurred the displeasure of many by disapproving of this book; and that no conveyance of her titles to the Spanish king had been ever executed.

The trial continued during two days; but the commissioners avoided delivering their opinions. My lord Burleigh, in whose management Elizabeth chiefly confided, and whom the Scottish queen discomposed in no common degree by her ability and vigour, being eager to conclude the business, demanded to know if she had any thing to add to what she had urged in her defence. She informed him, that she would be infinitely pleased and gratified, if it should be permitted to her to be heard in her justification before a full meeting of parliament, or before the queen and her privy-council. This intimation was unexpected; and the request implied in it was rejected. The court, in consequence of previous instructions from Elizabeth, adjourned to a farther day, and appointed that the place of its convention should be the star-chamber at Westminster. It accordingly assembled there; and Naw and Curl, who had not been produced at Fotheringay-castle, were now called before the commissioners. An oath to declare the truth was put to them; and they definitely affirmed and protested that the declaration they subscribed was in every respect just and faithful. Nothing farther remained but to pronounce sentence against Mary. The commissioners unanimously concurred in delivering it as their verdict or judgment, that she "was a party to the conspiracy of Babington; and that she had compassed and imagined matters within the realm of England tending to the hurt, death, and destruction, of the royal person of Elizabeth, in opposition to the statute framed for her protection." On the same day in which this extraordinary sentence was given, the commissioners and the judges of England issued a declaration, which imported, that it was not to derogate in any degree from the titles and honour of the king of Scots.

857 She desires to be heard before the parliament, or before the queen.

858 Judgment given against her.

The sentence against Mary was very soon ratified by the English parliament. King James was struck with horror at hearing of the execution of his mother; but that spiritless prince could show his resentment no farther than by unavailing embassies and remonstrances. France interposed in the same ineffectual manner; and on the 6th of December 1586, Elizabeth caused the sentence of the commissioners against her to be proclaimed. After this she was made acquainted with her fate, and received the news with the greatest composure, and even apparent satisfaction. Her keepers now refused to treat her with any reverence or respect. They entered her apartment with their heads covered, and made no obeisance to her. They took down her canopy of state, and deprived her of all the badges of royalty. By these insulting mortifications they meant to inform her, that she had sunk from the dignity of a princess to the abject state of a criminal. She smiled, and said, "In despite of your sovereign and her subservient judges, I will live and die a queen. My royal character is indelible; and I will surrender it with my spirit to Almighty God, from whom I received it, and to whom my honour and my innocence are fully known." In this melancholy situation Mary addressed a magnanimous letter to Elizabeth, in which, without making the least solicitation for her life, she only requested that her body might be carried to France; that she might be publicly executed; that her servants might be permitted to depart

859 The sentence ratified by the English parliament. An. 1586.

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part out of England unmolested, and enjoy the legacies which she bequeathed them." But to this letter no answer was given.

860 Imbecility of James, and extreme insolence and bigotry of his clergy.

In the mean time James, who had neither address nor courage to attempt any thing in behalf of his mother, announced her situation to his bigotted subjects, and ordered prayers to be said for her in all the churches. The form of the petition he prescribed was framed with delicacy and caution, that the clergy might have no objection to it. He enjoined them to pray, "that it might please God to enlighten Mary with the light of his truth, and protect her from the danger which was hanging over her." His own chaplains, and Mr David Lindsay minister of Leith, observed his command. But all the other clergy refused to prostitute their pulpits by preferring any petitions to the Almighty for a Papist. James, shocked with their spirit of intolerance and sedition, appointed a new day for prayers to be said for Mary, and issued a stricter injunction to the clergy to obey him; and that he might be free himself from any insult, he commanded the archbishop of St Andrew's to preach before him. The ecclesiastics, disgusted with his injunction, persuaded Mr John Cowper, a probationer in divinity, to occupy the pulpit designed for the archbishop. When the king entered the church, he testified his surprise; but told Cowper, that if he would obey his injunction, he might proceed to officiate. Cowper replied, "that he would do as the spirit of God would direct him." The king commanded him to retire, and the captain of his guard advanced to compel him to obedience. The enraged probationer exclaimed, that this violence "would witness against the king in the great day of the Lord;" and denounced a curse against the spectators for not exerting themselves in his defence. The archbishop now ascending the pulpit, performed with propriety the function to which he had been called, and took the opportunity of recommending moderation and charity to the audience. In the afternoon Cowper was cited before the privy-council; and was accompanied by Mr Walter Balcanqual and Mr William Watson, two ministers remarkable for their zeal. As a punishment for his audacious petulance, he was committed to the castle of Blackness; and his attendants having distinguished themselves by an impudent vindication of him, were prohibited from preaching during the pleasure of the king.

861 Elizabeth feels some remorse;

Elizabeth, in the mean time, felt the torment and disquiet of unhappy and miserable passions. At times she courted the sadness of solitude, and refused to be consoled or to speak. In other seasons her sighs were frequent, and she broke out into loud and wild exclamations expressive of the state of her mind. Her subjects waited the determination of her will under a distracting agitation and uncertainty. Her ministers, who knew that it is the nature of fear to exclude pity, were industrious in inventing terrifying intelligence, and in circulating it through the kingdom. There were rumours that the Spanish fleet had arrived at Milford-haven; that a formidable army of Scottish combatants was advancing to the capital; that the duke of Guise had disembarked many troops of veteran soldiers in Sussex; that Mary had escaped out of prison, and was collecting the English Catholics; that the northern counties had thrown aside their allegiance; and that there was a new plot to kill Elizabeth, and to reduce London to ashes. An actual conspiracy was even maliciously charged upon L'Aubespine the French resident: and he was forced to withdraw from England in disgrace. From the panic terrors which the ministers of Elizabeth were so studious to excite, they scrupled not loudly and invariably to infer, that the peace and tranquillity of the kingdom could be re-established only by the speedy execution of the Scottish queen.

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862 but signs the warrant for Mary's death.

While the nation was thus artfully prepared for the destruction of Mary, Elizabeth ordered Secretary Davidson to bring to her the warrant for her death. Having perused it with deliberation, she observed that it was extended in proper terms, and gave it the authority of her subscription. She was in a humour somewhat gay, and demanded of him if he was not sorry for what she had done. He replied, that it was afflicting to him to think of the state of public affairs; but that he greatly preferred her life to that of the Scottish princess. She enjoined him to be secret, and desired, that before he should deliver the warrant to the chancellor, he should carry it to Walsingham. "I fear much (said she, in a merry tone), that the grief of it will kill him."

This levity was momentary; and fears and anxieties succeeded it. Though she earnestly desired the death of Mary, she was yet terrified to encounter its infamy. She was solicitous to accomplish this base transaction by some method which would conceal her consent to it.

863 Wishes to have her privately murdered,

After intimating to Mr Davidson an anxious wish that its blame should be removed from her, she counselled him to join with Walsingham in addressing a letter to Sir Amias Paulet and Sir Drue Drury, recommending it to them to manifest their love to her by shedding privately the blood of her adversary. The unlawfulness of this deed affected Davidson, and he objected to it. She repeated resolutely her injunctions, and he departed to execute them. A letter under his name and that of Walsingham was despatched to Mary's keepers, communicating to them her purpose. Corrupted by her passions, and lost to the sensibilities of virtue, Elizabeth had now reached the last extremity of human wickedness. Though a sovereign princess, and entrusted with the cares of a great nation, she blushed not to give it in charge to her ministers to enjoin a murder; and this murder was connected with every circumstance that could make it most frightful and horrid. The victim for whose blood she thirsted was a woman, a queen, a relation, who was splendid with beauty, eminent in abilities, magnanimous under misfortunes, and smiling with innocence.

864 which her keepers refuse.

Sir Amias Paulet and Sir Drue Drury, though the slaves of religious prejudices, felt an elevation of mind which reflected the greatest disgrace on the sovereign. They considered themselves as grossly insulted by the purpose proposed to them; and in the return they made to Walsingham, they assured him, that the queen might command their lives and their property, but that they would never consent to part with their honour, and stain themselves and their posterity with the guilt of an assassination. When Davidson carried their despatch to her, she broke out into anger. Their scrupulous delicacy, she said, was a dainty infringement of their oath of association; and they were nice, precise and perjured traitors, who could give great promises in words, and achieve nothing. She told him, that the business could be performed without them; and recommended

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mended one Wingfield to his notice, who would not hesitate to strike the blow. The astonished secretary exclaimed with warmth against a mode of proceeding so dangerous and unwarrantable. He protested, that if she should take upon herself the blame of this deed, it would pollute her with the blackest dishonour; and that, if she should disavow it, she would overthrow for ever the reputation, the estates, and the children, of the persons who should assist in it. She heard him with pain, and withdrew from him with precipitation.

865 The warrant passes the great seal.

The warrant, after having been communicated to Walsingham, was carried to the chancellor, who put the great seal to it. This formality was hardly concluded, when a message from Elizabeth prohibited Davidson from waiting upon the chancellor till he should receive farther instructions. Within an hour after, he received a second message to the same purpose. He hastened to court; and Elizabeth asked eagerly, if he had seen the chancellor. He answered in the affirmative; and she exclaimed with bitterness against his haste. He said, that he had acted exactly as she had directed him. She continued to express warmly her displeasure; but gave no command to stop the operation of the warrant. In a state of uneasiness and apprehension, he communicated her behaviour to the chancellor and the privy-council. These courtiers, however, who were well acquainted with the arts of their mistress, and who knew how to flatter her, paid no attention to him. They perceived, or were secretly informed, that she desired to have a pretence upon which to complain of the secretary, and to deny that he had obeyed her instructions. They observed to him, that by subscribing the warrant, she had performed whatever the law required of her; and that it was not proper to delay the execution any longer. While they were anxious to please Elizabeth, they were conscious of their own cruelty to Mary, and did not imagine they could be in perfect security while she lived. They despatched the warrant to the earls of Shrewsbury and Kent, with instructions to them to fulfil its purpose.

866 Mary is acquainted with her fate.

When the two earls and their retinue reached Fotheringay castle, they found that Mary was sick, and reposing on her bed. They insisted, notwithstanding, to be introduced to her. Being informed by her servants that the message they brought was important and pressing, she prepared to receive them. They were conducted into her presence by Sir Amias Paulet and Sir Drue Drury; and with little formality they told her, that Elizabeth had consented to her death, and that she was to suffer the next morning at eight o'clock. Then Beale, one of the clerks of the privy-council, who accompanied them, read over the warrant, which she heard with pious composure and unshaken fortitude. They then affected to justify their mistress by entering into details concerning the conspiracy of Babington. She put her hand on the Scriptures, which lay on a table near her, and swore in the most solemn manner, that she never devised, consented to, or pursued the death of Elizabeth in any shape whatever. The earl of Kent, unwisely zealous for the Protestant religion, excepted against her oath as being made on a Popish bible. She replied to him mildly, "It is for this very reason, my lord, to be relied on with the greater security; for I esteem the Popish version of the Scriptures to be the most authentic.' Indulging his puritanical fervour, he declaimed against Popery, counselled her to renounce its errors, and recommended to her attention Dr Fletcher dean of Peterborough. She heard him with some impatience; and discovered no anxiety to be converted by this ecclesiastic, whom he represented as a most learned divine. Rising into passion, he exclaimed, that "her life would be the death of their religion, and that her death would be its life." After informing him that she was unalterably fixed in her religious sentiments, she desired that her confessor might have the liberty to repair to her. The two earls concurred in observing, that their consciences did not allow them to grant this request. She intimated to them the favours for which she had applied by her letter to Elizabeth, and expressed a wish to know if her sister had attended to them. They answered, that these were points on which they had received no instructions. She made inquiries concerning her secretaries Naw and Curl; and asked, whether it had ever been heard of, in the wickedest times of the most unprincipled nation, that the servants of a sovereign princess had been suborned for the purpose of destroying her. They looked to one another, and were silent. Bourgoin her physician, who with her other domestics was present at this interview, seeing the two earls ready to depart, besought them with an emphatic earnestness to reflect on the short and inadequate portion of time that they had allotted to his mistress to prepare herself for death. He insisted that a respect for her high rank, and the multiplicity and importance of her concerns, required at least a period of some days. They pretended, however, not to understand the propriety of his petition, and refused it.

867 She prepares for death.

On the departure of the two earls, her domestics gave a full vent to their afflictions; and while she experienced a melancholy pleasure in their tears, lamentations, and kindness, she endeavoured to console them. Their grief, she said, was altogether unavailing, and could better neither her condition nor their own. Her cause had every thing about it that was most honourable; and the miseries from which she was to be relieved were the most hopeless and the most afflicting. Instead of dejection and sadness, she therefore enjoined them to be contented and happy. That she might have the more leisure to settle her affairs, she supped early, and, according to her usual custom, she ate little. While at table, she remarked to Bourgoin her physician, that the force of truth was insurmountable; for that the earl of Kent, notwithstanding the pretence of her having conspired against Elizabeth, had plainly informed her, that her death would be the security of their religion. When supper was over, she ordered all her servants to appear before her, and treated them with the kindness which we have mentioned in her life. Having settled these attentions, she entered her bedchamber with her women; and, according to her uniform practice, employed herself in religious duties, and in reading in the Lives of the Saints. At her accustomed time she went to sleep; and after enjoying some hours of sound rest, she awaked. She then indulged in pious meditation, and partook of the sacrament by the means of a consecrated host, which a melancholy presentiment of her calamities had induced her to obtain from Pius V.

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At the break of day she arrayed herself in rich, but becoming apparel; and calling together her servants, she ordered her will to be read, and apologized for the smallness

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868 Account of her execution, 7th Feb. 1587.

smallness of her legacies from her inability to be more generous. Following the arrangement she had previously made, she then dealt out to them her goods, wardrobe, and jewels. To Bourgoin her physician she committed the care of her will, with a charge that he would deliver it to her principal executor the duke of Guise. She also entrusted him with tokens of her affection for the king of France, the queen mother, and her relations of the house of Lorraine. Bidding now an adieu to all worldly concerns, she retired to her oratory, where she was seen sometimes kneeling at the altar, and sometimes standing motionless with her hands joined, and her eyes directed to the heavens. In these tender and agitated moments, she was dwelling on the memory of her sufferings and her virtues, reposing her weaknesses in the bosom of her God, and lifting and solacing her spirit in the contemplation of his perfections and his mercy. While she was thus engaged, Thomas Andrews, the high sheriff of the county, announced to her, that the hour for her execution was arrived. She came forth dressed in a gown of black silk; her petticoat was bordered with crimson velvet; a veil of lawn bowed out with wire, and edged with bone-lace, was fastened to her caul, and hung down to the ground: an Agnus Dei was suspended from her neck by a pomander chain; her beads were fixed to her girdle; and she bore in her hand a crucifix of ivory. Amidst the screams and lamentations of her women she descended the stairs; and in the porch she was received by the earls of Kent and Shrewsbury with their attendants.—Here, too, she met Sir Andrew Melvil the master of her household, whom her keepers had debarred from her presence during many days. Throwing himself at her feet, and weeping aloud, he deplored his sad destiny, and the sorrowful tidings he was to carry into Scotland.

After she had spoken to Melvil, she besought the two earls that her servants might be treated with civility; that they might enjoy the presents she had bestowed on them; and that they might receive a safe-conduct to depart out of the dominions of Elizabeth. These slight favours were readily granted to her. She then begged that they might be permitted to attend her to the scaffold, in order that they might be witnesses of her behaviour at her death. To this request the earl of Kent discovered a strong reluctance. He said that they would behave with an intemperate passion; and that they would practise superstitious formalities, and dip their handkerchiefs in her blood. She replied, that she was sure that none of their actions would be blameable; and that is was but decent that some of her women should be about her. The earl still hesitating, she was affected with the insolent and stupid indignity of his malice, and exclaimed, "I am cousin to your mistress, and descended from Henry VII. I am a dowager of France, and the anointed queen of Scotland." The earl of Shrewsbury interposing, it was agreed that she should select two of her women, who might assist her in her last moments, and a few of her men-servants, who might behold her demeanour, and report it.

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She entered the hall where she was to suffer, and advanced with an air of grace and majesty to the scaffold, which was built at its farthest extremity. The spectators were numerous. Her magnanimous carriage, her beauty, of which the lustre was yet dazzling, and her matchless misfortunes, affected them. They gave way to contending emotions of awe, admiration, and pity. She ascended the scaffold with a firm step and a serene aspect, and turned her eye to the block, the axe, and the executioners. The spectators were dissolved in tears. A chair was placed for her, in which she seated herself. Silence was commanded; and Beale read aloud the warrant for her death. She heard it attentively, yet with a manner from which it might be gathered that her thoughts were employed on a subject more important. Dr Fletcher dean of Peterborough taking his station opposite to her without the rails of the scaffold, began a discourse on her life, past, present, and to come. He affected to enumerate her trespasses against Elizabeth, and to describe the love and tenderness which that princess had shown to her. He counselled her to repent of her crimes; and while he inveighed against her attachment to Popery, he threatened her with everlasting fire if she should delay to renounce its errors. His behaviour was indecent and coarse in the highest degree; and while he meant to insult her, he insulted still more the religion which he professed, and the sovereign whom he flattered. Twice she interrupted him with great gentleness. But he pertinaciously continued his exhortations. Raising her voice, she commanded him with a resolute tone to withhold his indignities and menaces, and not to trouble her any more about her faith. "I was born (said she) in the Catholic religion; I have experienced its comforts during my life, in the trying seasons of sickness, calamity, and sorrow; and I am resolved to die in it." The two earls, ashamed of the savage obstinacy of his deportment, admonished him to desist from his speeches, and to content himself with praying for her conversion. He entered on a long prayer; and Mary falling on her knees, and disregarding him altogether, employed herself in devotions from the office of the Virgin.

After having performed all her devotions, her women assisted her to disrobe; and the executioners offering their aid, she repressed their forwardness by observing, that she was not accustomed to be attended by such servants, nor to be undressed before so large an assembly. Her upper garments being laid aside, she drew on her arms a pair of silk gloves. Her women and men servants burst out into loud lamentations. She put her finger to her mouth to admonish them to be silent, and then bade them a final adieu with a smile that seemed to console, but that plunged them into deeper woe. She kneeled resolutely before the block, and said, "In thee, O Lord! do I trust, let me never be confounded." She covered her eyes with a linen handkerchief in which the eucharist had been inclosed; and stretching forth her body with great tranquillity, and fitting her neck for the fatal stroke, she called out, "Into thy hands, O God! I commit my spirit." The executioner, from design, from unskilfulness, or from inquietude, struck three blows before he separated her head from her body. He held it up mangled with wounds, and streaming with blood; and her hair being discomposed, was discovered to be already gray with afflictions and anxieties. The dean of Peterborough alone cried out, "So let the enemies of Elizabeth perish." The earl of Kent alone, in a low voice, answered, "Amen." All the other spectators were melted into the tenderest sympathy and sorrow.

Her

Her women hastened to protect her dead body from the curiosity of the spectators; and solaced themselves with the thoughts of mourning over it undisturbed when they should retire, and of laying it out in its funeral garb. But the two earls prohibited them from discharging these melancholy yet pleasing offices to their departed mistress, and drove them from the hall with indignity. Bourgoin her physician applied to them that he might be permitted to take out her heart for the purpose of preserving it, and of carrying it with him to France. But they refused his intreaty with disdain and anger. Her remains were touched by the rude hands of the executioners, who carried them into an adjoining apartment; and who, tearing a cloth from an old billiard-table, covered that form, once so beautiful. The block, the cushion, the scaffold, and the garments which were stained with her blood, were consumed with fire. Her body, after being embalmed and committed to a leaden coffin, was buried with royal splendour and pomp in the cathedral of Peterborough. Elizabeth, who had treated her like a criminal while she lived, seemed disposed to acknowledge her for a queen when she was dead.

869 Infamous dissimulation in Elizabeth and indifference in James.

On the death of his mother, the full government of the kingdom devolved on James her son. Elizabeth, apprehensive of his resentment for her treatment of his mother, wrote him a letter, in which she disclaimed all knowledge of the fact. James had received intelligence of the murder before the arrival of this letter, which was sent by one Cary. The messenger was stopped at Berwick by an order from the king, telling him, that, if Mary had been executed, he should proceed at his peril. James shut himself up in Dalkeith castle, in order to indulge himself in grief; but the natural levity and imbecility of his mind prevented him from acting in any degree as became him. Instead of resolutely adhering to his first determination of not allowing Cary to set foot in Scotland, he in a few days gave his consent that he should be admitted to an audience of certain members of his privy-council, who took a journey to the borders on purpose to wait upon him. In this conference, Cary demanded that the league of amity between the two kingdoms should be inviolably observed. He said that his mistress was grieved at the death of Mary, which had happened without her consent; and, in Elizabeth's name, offered any satisfaction that James could demand. The Scots commissioners treated Cary's speech and proposal with becoming disdain They observed, that they amounted to no more than to know whether James was disposed to sell his mother's blood; adding, that the Scottish nobility and people were determined to revenge it, and to interest in their quarrel the other princes of Europe. On this Cary delivered to them the letter from Elizabeth, together with a declaration of his own concerning the murder of the queen; and it does not appear that he proceeded farther

This reception of her ambassador threw Elizabeth into the utmost consternation. She was apprehensive that James would join his force to that of Spain, and entirely overwhelm her: and had the resentment or the spirit of the king been equal to that of the nation, it is probable that the haughty English princess would have been made severely to repent her perfidy and cruelty. It does not, however, appear, that James had any serious intention of calling Elizabeth to an account for the murder of his mother; for which, perhaps, his natural imbecility may be urged as an excuse, though it is more probable that his own necessity for money had swallowed up every other consideration. By the league formerly concluded with England, it had been agreed that Elizabeth should pay an annual pension to the king of Scotland. James had neither economy to make his own revenue answer his purposes, nor address to get it increased. He was therefore always in want; and as Elizabeth had plenty to spare, her friendship became a valuable acquisition. To this consideration, joined to his view of ascending the English throne, must chiefly be ascribed the little resentment shown by him to the atrocious conduct of Elizabeth.

870 Secretary Davidson and Lord Burleigh punished.

Elizabeth was not wanting in the arts of dissimulation and treachery now more than formerly. She prosecuted and fined Secretary Davidson and Lord Burleigh for the active part they had taken in Mary's death. Their punishment was indeed much less than they deserved, but they certainly did not merit such treatment at her hands. Walsingham, though equally guilty, yet escaped by pretending indisposition, or perhaps escaped because the queen had now occasion for his services. By her command he drew up a long letter addressed to Lord Thirlston, King James's prime minister; in which he showed the necessity of putting Mary to death, and the folly of attempting to revenge it. He boasted of the superior force of England to that of Scotland; showed James that he would for ever ruin his pretensions to the English crown, by involving the two nations in a war; that he ought not to trust to foreign alliances; that the Catholic party were so divided among themselves, that he could receive little or no assistance from them, even supposing him so ill advised as to change his own religion for Popery, and that they would not trust his sincerity. Lastly, He attempted to show, that James had already discharged all the duty towards his mother and his own reputation that could be expected from an affectionate son and a wise king; that his interceding for her with a concern so becoming nature, had endeared him to the kingdom of England; but that it would be madness to push his resentment farther.

This letter had all the effect that could be desired. James gave an audience to the English ambassador; and being assured that his blood was *not tainted* by the execution of his mother for treason against Elizabeth, but that he was still capable of succeeding to the crown of England, he consented to make up matters, and to address the murderer of his mother by the title of loving and affectionate sister.

The reign of James, till his accession to the crown of England by Elizabeth's death in 1603, affords little matter of moment. His scandalous concessions to Elizabeth, and his constant applications to her for money, filled up the measure of his meanness. Ever since the expulsion of Mary, the country had in fact been reduced to the condition of an English province. The sovereign had been tried by the queen of England, and executed for treason: a crime, in the very nature of the thing impossible, had not Scotland been in subjection to England; and to complete all, the contemptible successor of Mary thought himself well off that he was not a traitor

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traitor too, to his sovereign the queen of England we must suppose, for the case will admit of no other supposition.

871 Disturbances during the reign of James.

During the reign of James, the religious disturbances which began at the reformation, and that violent struggle of the clergy for power which never ceased till the revolution in 1688, went on with great violence. Continual clamours were raised against Popery, at the same time that the very fundamental principles of Popery were held, nay urged in the most insolent manner, as the effects of immediate inspiration. These were the total independence of the clergy on every earthly power, at the same time that all earthly powers were to be subject to them. Their fantastic decrees were supposed to be binding in heaven; and they took care that they should be binding on earth, for whoever had offended so far as to fall under a sentence of excommunication was declared an outlaw.

It is easy to see that this circumstance must have contributed to disturb the public tranquillity in a great degree. But besides this, the weakness of James's government was such, that, under the name of peace, the whole kingdom was involved in the miseries of civil war; the feudal animosities revived, and slaughter and murder prevailed all over the country. James, fitted only for pedantry, disputed, argued, modelled, and re-modelled, the constitution to no purpose. The clergy continued their insolence, and the laity their violences on one another; at the same time that the king, by his unhappy credulity in the operation of demons and witches, declared a most inhuman and bloody war against the poor old women, many of whom were burnt for the imaginary crime of conversing with the devil.

872 His superstition and cruelty.

873 King's marriage.

King James had for some time formed a matrimonial scheme, and had fixed his eyes on the princess Anne, daughter of Frederick II. king of Denmark. Queen Elizabeth attempted to embarrass this marriage as she had done that of his mother, but James overlooked all obstacles by an effort of gallantry of which he was deemed incapable. On the 22d of October, 1589, he sailed to Denmark and married the princess Anne, then in the 16th year of her age. The character of this princess has been generally represented in a very unfavourable light, but probably the imputations which have been cast on it, arose more from prejudice than reality.

874 Conspiracy of Gowrie. An. 1600.

In autumn 1600, a remarkable conspiracy happened against the liberty, if not the life, of the king. The attainder and execution of the earl of Gowrie for the part he acted in the raid of Ruthven and for subsequent practices of treason, have been already mentioned. His son, however, had been restored to his paternal dignity and estates, and had in consequence professed gratitude and attachment to the king. But the Presbyterian clergy continued to express their approbation of the raid of Ruthven, and to declare on every occasion that in their opinion the earl of Gowrie had suffered by an unjust sentence. One of the most eminent and popular of that order of men was preceptor to the younger Gowrie and his brothers, who, from their frequent conversations with him, must have been deeply impressed with the belief that their father was murdered. The passion of revenge took possession of their breasts; and having invited the king from Falkland to the earl of Gowrie's house at Perth, under the pretence of showing him a secret treasure of foreign gold, which he might lawfully appropriate to his own use, an attempt was made to keep him a close prisoner, with threats of putting him to instant death if he should make any attempt to regain his liberty.

The reality of this conspiracy has been questioned by many writers, for no other reason, as it would appear, but because they could not assign a rational motive for Gowrie's engaging in so hazardous an enterprise; and some have even insinuated that the conspiracy was entered into by the king against Gowrie in order to get possession of his large estates. It has been shown however by Arnot, in his Criminal Trials, with a force of evidence which leaves no room for doubt, that the conspiracy was the earl's, who seems to have intended that the king should be cut off by the hand of an assassin; and the same acute and discriminating writer has made it appear highly probable, that he entertained hopes, in the then distracted state of the nation not ill founded, of being able to mount the throne of his murdered sovereign. (z)

The particulars of this conspiracy, as far as they can be collected from the trial of the conspirators, and the depositions of the witnesses, published by Mr Arnot and the earl of Cromarty, are as follows. On the 5th of August at seven in the morning, while the king was about

(z) The family of Ruthven had long been looked upon as the head of that party which was attached to England and the reformation; and the accomplishments of the latter Gowrie qualified him to be the leader of an enterprising faction. The importance he derived from aristocratic influence over his extensive domains, and from the attachment of a powerful party in church and state, was embellished with the lustre of a regal descent. Thus ambition, as well as revenge, might stimulate him to his daring enterprise. Indeed, if his attempt was to be directed against the life of the king, it could no longer be safe for him to remain in the condition of a subject: and the indecent and malicious imputation of bastardy, with which the fanatics reproached King James, might afford a plausible pretext for secluding the royal offspring. The family of Hamilton, next heir to the crown, had long lost its popularity, and the earl of Arran, its head, had lost his judgment; and, though there undoubtedly were several families interposed between Gowrie and the crown in the strict line of succession, none of them probably possessed power and popularity to support their right. But if Gowrie and his brother were really endowed with those personal accomplishments which have been so highly extolled, and which made their countrymen conceive the most *sanguine hopes of their early virtues*; it is absurd to suppose Lord Gowrie to have flattered himself, that in a country where *the church was in danger*, where the trumpet of sedition was sounded by the ministers who fortified the *chief block-house of the Lord's Jerusalem*, his piety, popularity, and bravery, should supply the defect in title, and make him be called, while there were nearer heirs to the crown; as has since happened in the same country, on a similar occasion.

about to mount his horse, to hunt in Falkland park, Alexander Ruthven, brother of the earl of Gowrie, addressed him in a very familiar manner. After the hunt was over, the king desired the duke of Lenox to accompany him to the earl of Gowrie's at Perth, telling him that Alexander Ruthven had invited him to get some hidden treasure, but desired the duke to have an eye to himself, and to follow him wherever he went with Alexander Ruthven. When they arrived at the earl of Gowrie's, it was observed that the earl's servants were armed. After the king had dined, Ruthven carried him to the uppermost part of the house, where he attempted to make him a prisoner, and to bind his hands; but the king resisted, and called out treason from the window. Sir John Ramsay, who carried the king's hawk, first entered the chamber, where he saw Ruthven struggling with the king. Ramsay soon despatched the traitor; and the earl of Gowrie entering with a sword in each hand, and followed by armed men, there ensued a short conflict, in which the earl was mortally wounded by Sir John Ramsay.

For this eminent service Sir John Ramsay was ennobled; and though Gowrie and his brother fell in the struggle, they were attainted by an act of parliament, which decerned their name, memory, and dignity, to be extinguished; their arms to be cancelled; their whole estates to be forfeited and annexed to the crown; the name of Ruthven to be abolished; and their posterity and surviving brethren to be incapable of succeeding to, or of holding, any offices, honours, or possessions.

875 The Western islanders civilized.

The most memorable transaction of James's reign, and that most to his honour, is the civilizing of the Western islanders. For this purpose, he instituted a company of gentlemen adventurers, to whom he gave large privileges for reforming them. The method he proposed was to transport numbers of them to his low countries in Scotland, and to give their islands, which were very improvable, in fee to his lowland subjects who should choose to reside in the islands. The experiment was to be made upon the Lewes, a long range of the Ebudæ; whence the adventurers expelled Murdoch Macleod, the tyrant of the inhabitants. Macleod, however, kept the sea; and intercepting a ship which carried one of the chief adventurers, he sent him prisoner to Orkney, after putting the crew to the sword. Macleod was soon after betrayed by his own brother, and hanged at St Andrew's. The history of this new undertaking is rather dark; and the settlers themselves seem to have been defective in the arts of civilization. The arrangements they made were considered by the inhabitants as very oppressive; and one Norman, of the Macleod family, attacked and subdued them so effectually, that they not only consented to yield the property of the islands to him, but engaged to obtain the king's pardon for what he had done.

876 Accession of James to the crown of England. An. 1603.

From the conspiracy of the Gowries there are few transactions deserving of notice in the reign of James VI. till the death of Queen Elizabeth, in 1603, called him to the English throne. From that period the affairs of Scotland are so intimately blended with those of England, that they cannot properly be considered apart. We have accordingly given a detail of the transactions of both countries from the accession of James to the throne of England, in the article BRITAIN. Some circumstances more peculiarly relating to Scotland, will be found under the articles EDINBURGH, LEITH, and GLASGOW.

We shall conclude the historical part of this article with a brief review of the state of affairs in Scotland from the introduction of the reformed religion, and a general statement of the effects produced, by the accession of James, on the state of his native kingdom.

877 Review of public affairs from the reformation.

The period of the reformation may be regarded as the period of crimes. The people were reformed from Papacy to Protestantism; but there was no reform in their morals. It was the fashion to declaim about religion; but if we may judge from the facts related by the annalists of those revolutionary times, religion had but little influence on the lives and manners of the people. Conspiracy followed conspiracy, and crime succeeded crime in rapid succession. History evinces that every great revolution produces the most unhappy effects on the human character; and it is certain from the annals of the reformation in Scotland, that the turbulent spirit of the people received an additional incitement from the civil conflicts of the superior classes.

We have seen that the reformers were more studious to pull down than to build. The whole estates of the ancient church were appropriated by the nobles before any proper establishment was made for the reformed clergy. Laws for promoting and securing the reformation were ratified on every topic, except that of providing for the ministers of the new religion. The church judicatories and the reformed clergy took the place, and assumed the practices, of the Papal establishment and the Popish functionaries. The ministers censured from the pulpits the conduct of the court; they disputed the authority of the king, and promoted tumults and sedition through the nation, so that the king and the parliament found it necessary to enact a variety of laws for enforcing the obedience of the ecclesiastical to the civil power; and some of the clergy continuing contumacious, they were expelled the kingdom. From this measure, however necessary it might be deemed, the king acquired much popular odium; and it was the prelude to continual disputes between him and the leaders of the reformation. In 1580, a convention of the clergy assembled at Dundee, and passed a resolution abolishing Episcopacy. This was opposed by a counter declaration from the king; and in 1597, the parliament passed a law, by which it was enacted, that "ministers, provided to prelacy, should have a place in the three estates."

In order to erect the assumptions of the newly formed church on the ruins of the state, the clergy had proceeded to such lengths, that it became necessary to oppose barriers to their pretensions. So early as the year 1584, the parliament had passed an act, declaring, that the honour, authority, and dignity, of the estates shall stand and continue in their ancient integrity, supreme over all things and all persons; and, to support this declaration by an adequate penalty, it was further declared to be treason to call in question, or to diminish, the power of the three estates. All other conventions or assemblies that pretended to meet without the king's authority, were denounced as illegal. What was thus declared amid the ravings of anarchy respecting the supreme power of the state, constituted only new affirmations of the ancient law; but these wise provisions were followed

lowed by a whole code respecting the constituent members, the mode of sitting, and the authority of the three estates. This code was drawn up in the 11th parliament of James VI.

As a new power had arisen rather in the church than in the state, disputing the king's legal capacity, the 18th parliament in its zeal passed an act, acknowledging the royal prerogative and the privilege of the crown over all estates, persons, and causes; and this prerogative and privilege the three estates engaged to maintain with their lives, lands, and goods. Besides this, they provided a standing guard for the safety of the king's person.

The judicial power of the state had acquired a useful improvement by the establisnment of the college of justice in the preceding reign; but if the senators could not act without question by individuals, justice held her scales in vain. Amid the wildness and irascibility of those times, some of the judges had been thus questioned, and the parliament interposed in behalf of justice, by declaring, that, whoever should challenge a senator for his opinion, should be punished with death.

During the early ages of the Scottish nation, clanship from blood had existed in every part of North Britain. Throughout the whole Scoto-Saxon period there existed, as we have seen, from conquest and from birth, a state of universal villenage, which disappeared in the 15th century. Amid the anarchy of subsequent times, there arose various clans, which were divided, according to the policy of those times, into clans of the Borders and clans of the Highlands. From such a state of society, and from the want of employment, we may account for the facility with which great bodies of men were then drawn together at the call of every petty chieftain. In some measure to counteract this facility of exciting disturbance and rebellion, the parliament of 1587 had passed an act, by which the chiefs of all the clans were obliged to give security for their peaceable demeanour, and were made answerable for the enormities committed by their adherents. By the union of the two crowns, however, the clans of the borders were in a great measure dissolved, and the quiet of that part of the kingdom finally established.*

* *Chalmers's Caledonia*, vol. i. 878

Effects of James's accession on the state of Scotland.

The Scots had so long considered their monarchs as next heirs to the English throne, that they had full leisure to reflect on all the consequences of their being advanced to that dignity. But dazzled with the glory of giving a sovereign to their powerful enemy, relying on the partiality of their native prince, and in full expectation of sharing liberally in the wealth and honours which he would now be able to bestow, they attended little to the most obvious consequences of that great event, and rejoiced at his accession to the throne of England, as if it had been no less beneficial to the kingdom than honourable to the king. They soon had reason, however, to adopt very different sentiments, and from that period we may date a total alteration in the political constitution of Scotland.

The feudal aristocracy which had been subverted in most nations of Europe by the policy of their princes, or had been undermined by the progress of commerce, still subsisted with full force in Scotland. Many causes had contributed gradually to augment the power of the Scottish nobles; and even the Reformation which, in every other country where it prevailed, added to the authority of the monarch, had increased their wealth and influence. A king possessed of a small revenue with a prerogative extremely limited, and unsupported by a standing army, could not exercise much authority over such potent subjects. He was obliged to govern by expedients; and the laws derived their force not from his power to execute them, but from the voluntary submission of the nobles. But though this produced a species of government extremely feeble and irregular; though Scotland, under the name and with all the outward ensigns of a monarchy, was really subject to an aristocracy, the people were not altogether unhappy; and even in this wild form of a constitution, there were principles which tended to their security and advantage. The king, checked and overawed by the nobles, durst venture upon no act of arbitrary power. The nobles, jealous of the king, whose claims and pretensions were many, though his power was small, were afraid of irritating their dependants by unreasonable exactions, and tempered the rigour of aristocratical tyranny with a mildness and equality to which it is naturally a stranger. As long as the military genius of the feudal government remained in vigour, the vassals both of the crown and of the barons were generally not only free from oppression, but were courted by their superiors, whose power and importance were founded on their attachment and love.

But, by his accession to the throne of England, James acquired such an immense accession of wealth, of power, and of splendour, that the nobles, astonished and intimidated, thought it vain to struggle for privileges which they were now unable to defend. Nor was it from fear alone that they submitted to the yoke. James, partial to his countrymen, and willing that they should partake in his good fortune, loaded them with riches and honours; and the hope of his favour concurred with the dread of his power in taming their fierce and independent spirits. The will of the prince became the supreme law in Scotland; and the nobles strove, with emulation, who should most implicitly obey commands which they had formerly been accustomed to contemn. Satisfied with having subjected the nobles to the crown, the king left them in full possession of their ancient jurisdiction over their own vassals. The extensive rights, vested in a feudal chief, became in their hands dreadful instruments of oppression; and the military ideas, on which these rights were founded, being gradually lost or disregarded, nothing remained to correct or to mitigate the rigour with which they were exercised. The nobles, exhausting their fortunes by the expense of frequent attendance upon the English court, and by attempts to imitate the manners and luxury of their more wealthy neighbours, multiplied exactions upon the people, who durst hardly utter complaints, which they knew would never reach the ear of their sovereign, nor move him to grant any redress.

At their accession to the throne of England, the kings of Scotland, once the most limited, became, in an instant, the most absolute princes in Europe, and exercised a despotic authority, which their parliaments were unable to control, or their nobles to resist.

The church felt the effects of the absolute power which the king acquired by his accession; and its revolutions, too, are worthy of notice. James, during the latter years of his administration in Scotland, had revived the name and office of bishops. But they possessed no

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no ecclesiastical jurisdiction or pre-eminence; their revenues were inconsiderable; and they were scarcely distinguished by any thing but by their seat in parliament, and by being the object of the clergy's jealousy and the people's hatred. The king, delighted with the splendour and authority which the English bishops enjoyed, and eager to effect a union in the ecclesiastical policy which he had in vain attempted in the civil government of the two kingdoms, resolved to bring both churches to an exact conformity with each other. Three Scotsmen were consecrated bishops at London. From them their brethren were commanded to receive orders. Ceremonies unknown in Scotland were imposed; and, though the clergy, less obsequious than the nobles, boldly opposed the innovations, James, long practised and well skilled in the arts of managing them, obtained at length their compliance. *

* Robertson's Scotland.

879 Scottish antiquities.

880 Druidical.

The monuments of antiquity belonging to North Britain may be considered under three heads, as they belong to the Celtic period, the Roman period, or the *Scoto-Irish* period. Of the first of these periods very few monuments now remain, and these are chiefly of the tumular kind; consisting either of circles of stones, the evident remains of druidical worship, or of the remains of the hill forts, which appear to have been employed by the ancient Caledonians as places of defence. Of these hill forts there is a remarkable example at Barrow-hill in Aberdeenshire, which is described and figured by Mr Chalmers; † and a similar fort appears to have existed at Barry-hill near Alyth in Perthshire.

† Caledonia, vol. i. p. 90.

881 Roman.

The remains of the *Roman* period in North Britain appear chiefly in the celebrated wall built in the reign of Antoninus Pius, between the friths of Forth and Clyde; in the ruins of which many curious inscriptions have been found. Another striking object of this epoch was a small edifice, vulgarly called *Arthur's oven*, which seems to have been regarded by some antiquaries as a small temple, dedicated to the god *Terminus;* probably after the erection of the wall of Antoninus, for we are not to conceive that these walls were the absolute lines, beyond which the Romans possessed no territory; while, on the contrary, in the pacific intervals, the garrisons along the wall may have claimed the forage of the exterior fields; and the stream of Carron, beyond which this chapel stood, may have been considered as a necessary supply of water. The remains of the wall and forts, and other Roman antiquities in Scotland, particularly their camps and stations, many of which are remarkably entire, are ably illustrated in a publication of General Roy, and in the *Caledonia* of Mr Chalmers. General Roy, indeed, has too implicitly followed a common antiquarian error, in ascribing all these camps, stations, &c. to Agricola; while they may be more justly assigned to Lollius Urbicus, A. D. 140, or to the emperor Severus, A. D. 207, especially, indeed, to the latter; for the emperor's appearance in person to conduct two campaigns, probably as far as Inverness, must have occasioned the erection of works more eminent and durable than usual; the soldiers being excited by the animating controul of a military monarch. In the reign of Domitian, Bolanus, as we learn from Statius the poet, erected several works in Britain, probably in the north; so that it is idle to impute these remains to any one author: but, to a judicious eye, the claims of Lollius Urbicus and of Severus seem preferable. One of the most northerly Roman camps yet discovered, is that near the source of the river Ythan, Aberdeenshire; periphery about two English miles. A smaller station has also been observed at Old Meldrum, a few miles to the south-east.

Four remarkable Roman stations are described and figured by Mr Chalmers; one on the north bank of the river Dee, near Peter-Culter in Aberdeenshire, occupying about eight Scotch acres; * a second in Banffshire on the southern bank of the Spey, near its mouth; † a third on the eastern bank of the river Findhorn, near Forres, which we believe to be the *Varis* of the Romans; ‡ and a fourth, now called the *Green Castle*, near *Clattering Brig* in Kincardineshire, forming a fort whose internal area measures nearly 158 feet, by 262 feet. §

* Caledonia, vol. i. p. 125.
† Ib. p. 129.
‡ Ib. p. 131.
§ Ib. p. 178.

Roman roads have been traced a considerable way in the east of Scotland, as far as the county of Angus, affording some evidence of the existence of the province of Vespasiana; but the chief remains are within the wall. A hypocaust was also discovered near Perth, and another near Musselburgh, so that there was probably some Roman station near the Scottish capital; but the name of Alaterva is a ridiculous error, arising from an inscription by some foreign cohort to obscure goddesses of their own country, styled *Matres Alaterves.* The smaller remains of Roman antiquity found in Scotland, as coins, utensils, &c. are numerous.

882 Scoto-Irish.

There remain few monuments of antiquity that can be referred to the earlier part of the Scoto-Irish period. These consist principally of stone pillars and obelisks of rude workmanship, and generally without inscriptions. There are, however, some remarkable sculptured monuments referable to this period, such as the upright stones that stand in a cultivated field near Cargil, and are carved with figures of the moon and stars; a sculptured pillar near Forres, supposed to refer to the expulsion of the Danes in the reign of Malcolm II.; a hieroglyphical column which stands conspicuous on the moor of Rhyne in Aberdeenshire; some carved stones in the churchyard of Meigle, and perhaps the chapel of St Regulus at St Andrew's.

Among the antiquities of this period we must not omit to mention the remarkable *terrace-hills*, which are seen in many parts of Scotland (especially in Peeblesshire, as in the parish of Newlands). These hills appear to have served the purpose of amphitheatres, where the people witnessed the exhibition of plays and other public sports.

883 Pictis

The monuments of antiquity that have been referred to the Picts, are rather of doubtful authenticity. These round towers, composed of stones without cement, which have been called Picts houses, and are still found in the Orkney islands, and in some parts of the north of Scotland, are generally considered as the remains of the nation whose name they bear, though Mr Chalmers will have them to be the remains of the old Celtic architecture.

884 Danish.

Many Danish monuments have been described by antiquaries as existing in North Britain; but the characters of most of them are not sufficiently distinct to ascertain their Danish origin. One of the most certain Danish antiquities is found in the churchyard of Ruthwell in Dumfries-shire. When this monument was entire, it appears to have been about 18 feet high without its pedestal,

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pedestal, and to have been sculptured on each of its four sides with foliage, birds, and marine animals, and inscribed with Runic letters. This curious pillar, which seems to be almost the only Runic remain in Scotland, was formerly held in such high veneration by the common people, that a decree of the general assembly of the kirk, in 1644, ordained it to be thrown down as an object of idolatry.

Of the numerous remains of castles, cathedrals, and monasteries, which occur in almost every part of Scotland, our limits do not permit us to take particular notice. Many of them have been already described under the names of the places where they are found; and such of our readers as desire a more particular account of these interesting ruins, may consult the *Beauties of Scotland*, where their curiosity will be amply gratified.

885 Population of Scotland.

In our tabular view of the counties of Scotland, we have noted the population of each county as it was ascertained in 1801 and 1811, from which it appeared, that, in the latter year, the whole population of Scotland amounted to 1,805,688. From these, and other facts, there can be no doubt that the general population of the country is increasing. Thus it appears, that, in the year 1755, there were in Scotland about 1,265,000 souls; and, in 1791, 1,526,000. (A) Of the population in 1811, 907,431 persons lived in towns, and 898,257 in the country. The number of families was 402,068, of which 125,799 were chiefly employed in agriculture, 169,417 in trade, manufactures, and handicrafts, and 106,852 in other occupations. The total number of houses was 315,422. The annual number of baptisms was computed to be 53,162; of burials 37,032; and of marriages 15,026. (See *Colquhoun's Treatise on the Wealth and Power of the British Empire*, 1815.)

886 Political constitution.

The government of Scotland since the union has been blended with that of England. The chief distinction between the original constitution of the two countries was, that Scotland had no house of commons, the parliament consisting of all descriptions, assembled in one hall. That enlightened prince James I. of Scotland, endeavoured to establish a house of commons in imitation of that of England, where he was educated; but the people most firmly and vigorously defended their ancient customs. The most splendid remaining feature of government in Scotland is the general assembly. Next to this may be classed the high courts of justice, especially that styled the Session, lately consisting of a president and fourteen senators. The Lords of Council and Session, as they are styled in Scotland, upon their promotion to office, assume a title, generally from the name of an estate, by which they are known and addressed, as if peers by creation, while they are only constituted lords by superior interests or talents. This court is the last resort in civil causes, and the only appeal is to the British house of peers. The justiciary court, which is the criminal court of Scotland, consists of five judges, who are likewise lords of session; but with a president, styled the lord justice clerk, as he is understood to represent the formerly great office of justice general, an office which still continues, though it may be considered rather as a post of honour and profit. This is the supreme court in criminal causes, which are determined by the majority of a jury, and not by their unanimity as in England. There is also a court of exchequer, consisting of a lord chief baron and four barons, who have the chief jurisdiction over the public revenue of Scotland; and a high court of admiralty, in which there is only one judge, who is the king's lieutenant and justice general on the high seas, and in all ports and harbours. From this court there is no appeal in maritime cases. The keepers of the great and privy seals, and the lord-register or keeper of the records, may also be mentioned under this head.

Besides the above national judges, there is in every county, a sheriff, who acts as chief magistrate, and whose jurisdiction extends to some criminal cases, and to all civil matters which are not by special law or custom appropriated to other courts.

The recent changes which have been made in the court of session, by dividing it into two houses, and by establishing a jury court for introducing this mode of trial in civil cases, are well calculated to favour the despatch of business, and to improve the administration of justice. At present the court of session consists of two divisions, the first of which is composed of eight judges, having the lord-president at their head, while in the second there are seven judges, whose president is the lord justice clerk; and three of the former, and two of the latter, act as permanent judges-ordinary. (B)

887 Public revenues.

At the union in 1709, the revenue of Scotland was only 160,000*l.* In 1789, Sir John Sinclair has stated the proportion of the public revenues furnished by North Britain to be as follows. The produce of the Scotch customs, in the year ending January 5th 1789, was 250,839*l.*; from which was deducted for debentures, bounties, salaries, and incidents, 171,638*l.* The average yearly amount of the money belonging to the exchequer is 72,500*l.* The salt duties in the same year yielded 18,043*l.*, from which was deducted for drawbacks, salaries, &c. 8749*l.* The duties of excise for that year exceeded 422,000*l.*; the expense of management 83,982*l* The stamp duties amounted to 73,877*l.*; the charges of managing and collecting were 8032*l.* The whole revenue of Scotland for 1788 was 1,099,148*l.* The expenditure was as follows—expenses of the crown 60,342*l.*; expenditure of the public 173,921*l.*; bounties, drawbacks, &c. 127,629*l.*; public expenses settled by the union, and by subsequent acts of parliament, 64,868*l.*; cash remitted to the English exchequer 628,081*l.*; balance remaining for national purposes 44,307*l.*

To the above statement of Sir John Sinclair must be added the income arising from the posts, which in 1801 amounted

(A) This last number is taken from the returns published in Sir John Sinclair's account. According to the returns in the population act in 1801, Scotland, at that period, contained 294,553 inhabited houses, 9537 uninhabited houses, 364,079 families, 734,581 males, 864,487 females, making a total of 1,599,068 inhabitants; of whom 365,516 were chiefly employed in agriculture; 293,373 chiefly employed in trade, manufactures, and handicrafts, and 833,914 were not included in these two classes.

(B) For an account of the first establishment of the *College of Justice* by James V. see N° 473.

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amounted to 89,817*l.*; and the product of the income tax, which about the same time yielded 344,015*l.* and was paid by 20,537 persons of various professions, whose incomes were assessed at 4,512,570*l.* Thus the whole revenue of Scotland at the end of the 18th century, may be estimated at nearly one million and a half.

In 1813, the gross revenue of Scotland amounted to 4,519,892*l.*, and, deducting charges of management, the net revenue was 4,155,599*l.* The gross receipt of customs that year, was 857,744*l.*; of excise 1,726,900*l.*; of the property tax 966,790*l.*; of the land tax 24,551*l.*; of the assessed taxes 412,977*l.*; of stamps 348,523*l.*; of the post-office 167,877*l.*; miscellaneous 14,526*l.* At the Union, the revenue of Scotland was only $\frac{1}{30}$th of the revenue of Great Britain, but in 1813 it was rather more than $\frac{1}{15}$th; and at the latter date, the revenue of Scotland was to that of Ireland nearly as 7 to 8. In 1818, the gross produce of the customs for Scotland was 904,080*l.*, and the net produce 760,926*l.* The gross produce of excise the same year was 2,199,988*l.*, and the net produce 1,808,700*l.* The gross produce of stamps was 462,516*l.*, and the net produce 439,533*l.* (*Colquhoun's Treatise, Parliamentary Papers.*)

It appears that the hereditary revenue of the crown in Scotland was so much diminished during the 18th century by lavish grants made by the crown, and a neglect in collecting what remained, as to amount in 1788 to only 800*l.* *

* *Playfair's Geog.* vol. ii. p. 558.

888 Scottish representation in parliament.

Scotland is represented in the British Parliament by 16 peers, chosen by the whole body of the Scottish peerage, and by 45 commoners, of whom 30 are elected by the counties, and the remaining 15 by as many districts of royal boroughs, one by each district. The following table will show what royal boroughs belong to each district.

Districts.	Members.
1. Edinburgh city - -	1
2. Aberdeen, Aberbrothic, Bervie, Montrose, and Brechin - -	1
3. Ayr, Irving, Inverary, Rothsay, and Campbeltown - -	1
4. Anstruther Easter and Wester, Crail, Kilrenny, and Pittenweem - -	1
5. Banff, Cullen, Kintore, Elgin and Inverury	1
6. Stirling, Culross, Inverkeithing, Dunfermline, and Queensferry - -	1
7. Perth, Dundee, Forfar, St Andrew's, and Cupar Fife - - -	1
8. Glasgow, Renfrew, Rutherglen, and Dumbarton	1
9. Dumfries, Sanquhar, Annan, Lochmaben, and Kirkcudbright - -	1
10. Inverness, Fortrose, Nairn, and Forres	1
11. Kinghorn, Dysart, Kirkcaldy, and Burntisland	1
12. Jedburgh, Haddington, Lauder, Dunbar, and North Berwick - -	1
13. Selkirk, Peebles, Lanark, and Linlithgow	1
14. Stranraer, Wigton, Whitehorn, and New Galloway - - -	1
15. Kirkwall, Tain, Dingwall, Wick, and Dornoch	1

The county members are elected by gentlemen possessed of landed property, or superiorities of lands valued in the cess-books of the county at 400*l.* Scots yearly rent, according to a valuation first introduced during the administration of Cromwell, and afterwards sanctioned by parliament.

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889 Laws.

The law of Scotland differs essentially from that of England, as the former is founded in a great measure on the civil law, while the latter depends chiefly on the statutes or acts of parliament. The law of Scotland also consists partly of statute law; but as many of its ancient statutes have never been enforced, the chief rule of practice arises from the decisions of the court of session, which are carefully preserved and published, and afford precedents that are generally deemed unexceptionable. The civil and canon laws may be said to form the two great pillars of Scottish judicature, for of common law there is scarcely a trace. The modes of procedure in Scotland are in general free from many of those legal fictions which disgrace the laws of some other countries, though it may be regarded as a fiction, that a debtor who refuses or neglects to pay, should be proclaimed a rebel to the king. The procedure in cases of debt is peculiarly mild in Scotland. No man can be suddenly arrested as in England: but he is first *put to the horn*, as it is termed, after which a certain delay is granted before the *caption* or arrest takes place. For a particular account of the Scottish laws, see the article LAW.

890 Religion.

The Presbyterian church government, which, since the revolution in 1688, has formed the established religion in Scotland, is founded on an equality of authority among all its pastors or presbyters, and is modelled after the Calvinistic plan adopted at Geneva, and recommended to the Scotch reformers by the celebrated John Knox. This form of church government, therefore, excludes all pre-eminence of rank, as all the ministers are on an equal footing. The want of ceremony in the ordinances of the Scottish church is unpleasing to the eye of a stranger who has been brought up in the Catholic or Lutheran persuasion. He will particularly be led to make a comparison between the form or rather *mode* of burial in Scotland and the burial service of England, very unfavourable to the former. He will contrast the hurried step, and indifferent if not noisy behaviour of the bearers and attendants, and the unceremonious deposition of the body in the earth, according to the Scotch custom, with the slow and measured pace, the serious demeanour and melancholy silence, the solemn and impressive burial-service, at an English funeral; and he cannot but give the preference to the latter, as being alone calculated to produce sentiments of awe and becoming thoughts of death and a future state, both on the actors and spectators of the solemn scene.

The most ceremonious ordinance of the Scotch church is the administration of the sacrament. This takes place twice a year, and the communicants are generally very numerous, though in most parishes they must have previously been examined by the minister, and received from him a *token* of their qualification. Before the sacrament is administered, a solemn fast is held on the preceding Thursday, and the communicants attend divine worship in the forenoon on the Saturday preceding, and the Monday following the sacrament Sunday.

The former austerity of the Scottish clergy is considerably relaxed; but some marks of the ancient strictness of discipline still remain. In particular, the *stool of repentance*, so commonly used in the age of fanaticism,

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cism, is still occasionally brought forward, especially in the country churches, where a rustic culprit is sometimes seen doing penance, and receiving public reproof for some flagrant act of incontinence.

891 Ecclesiastical constitution.

The ecclesiastical power is distributed among the judicatories of the church in the following manner. Scotland is divided into 935 parishes, each of which has one or more ministers, who discharge the pastoral office according to their discretion, and are accountable only to the presbytery of which they are members. In matters relating to discipline, the ministers are assisted by elders, selected from among the most intelligent and regular of his parishioners; but these elders have no right to teach, or to dispense the sacraments. Their proper office is to watch over the morals of the people, to question them as to their knowledge of the church catechism, and to visit the sick. In attending to the interests of the poor, they also discharge the office of deacons, or church-wardens, and are commonly called *ruling elders*. The ruling elders and the minister of the parish form what is called the kirk session, which is the lowest assembly of ecclesiastical judicature in Scotland. The kirk-session distributes among the poor the alms which are collected at the church doors every Sunday, and it takes cognisance of petty offences against religion and good morals. Neither the kirk-session, nor any other ecclesiastical court, however, can impose any civil penalty, but must confine its punishments to private or public admonitions, or refusing to the offender admission to the sacraments of the church. Next above the kirk-session is the presbytery, composed of an indefinite number of ministers of contiguous parishes, with one ruling elder, elected half-yearly as the representative of each kirk-session; so that a presbytery is composed of an equal number of ministers and elders. The presbyteries take cognizance of all ecclesiastical matters within their bounds; judge in cases of appeal from the kirk-sessions, and judge of the qualifications of candidates for admission to holy orders. Three or more adjacent presbyteries form a synod, of which there are 15. The synod is a court of appeal from the presbyteries within its bounds, and has the power of confirming or reversing the judgments of those inferior assemblies, an appeal lying from it to the general assembly. This is the great ecclesiastical court of Scotland, and is composed of representatives from presbyteries, universities, and royal boroughs, in the following proportion. The presbyteries send 200 ministers, and 89 ruling elders; the royal boroughs 67 elders, and the universities five representatives, who may be either ministers or elders. These representatives are elected annually, and the assembly itself meets once a year, and holds its sittings for about 10 days, after which it is dissolved by the moderator or the ecclesiastical president, and by the lord commissioner, who sits in it as the representative of the king. The general assembly judges in appeals from the synods, and it can also enact laws which are binding on the whole church for one year. A permanent law can be made only in the following manner. It must be decreed by a majority of the general assembly, and be afterwards remitted to the consideration of all the presbyteries. If a majority of these approve it, and if it is also approved by the succeeding general assembly, it becomes a law, and can be repealed only in the form in which it was enacted. (c) The numbers of presbyteries and parishes which compose each synod, will appear from the following table.

Synods.	Presb.	Parishes.
1. Lothian and Tweeddale	7	107
2. Merse and Teviotdale	6	67
3. Dumfries - -	5	54
4. Galloway - -	3	37
5. Glasgow and Ayr -	7	123
6. Perth and Stirling -	5	79
7. Fife - -	4	65
8. Forfar and Mearns -	6	81
9. Aberdeen -	9	103
10. Murray - -	7	53
11. Ross - -	3	24
12. Sutherland and Caithness	3	23
13. Argyle - -	5	52
14. Glenelg - -	5	29
15. Orkney - -	4	38
	79	935

The stipends or salaries of the ministers are paid by the proprietors of the lands within their parishes, called the heritors, and are fixed by the court of session acting as a committee of the Scottish parliament. They are usually paid partly in money and partly in kind, and in general the latter is preferred by the minister.

892 Dissenters.

There are in Scotland numerous dissenters from the established persuasion. Of these, some differ in nothing but their ideas of church-government, as those which are called the churches of Relief. These compose a single synod, comprising six presbyteries, viz. Edinburgh, Glasgow, St Ninians, Dysart, Perth and Dumfries, and about 73 parishes. Two of the principal sects of Scotch dissenters, or, as they are called, *Seceders*, are the Burghers and Antiburghers, both independent of the established church, and differing from each other principally in this circumstance, that the Burghers admit the legality of the oaths taken by burgesses in some of the royal boroughs, while the latter deny the legality of these oaths. The Burghers are the more numerous body, and comprise a single synod, comprehending 10 presbyteries, viz. those of Edinburgh, Glasgow, Kilmarnock, Falkirk and Stirling, Dunfermline, Perth, Coldstream, Selkirk, Lanark, and Aberdeen. The Antiburgher synods are three in number, viz. the synod of Edinburgh, comprehending the presbyteries of Edinburgh, Kelso, and Dumfries; the synod of Perth, comprehending the presbyteries of Perth, Kirkcaldy, and Forfar; and the synod of Glasgow, containing the presbyteries of Glasgow, Kilmarnock, Stirling, Elgin, and Aberdeen.

Besides these dissenters, there are in Scotland seven dioceses belonging to the Episcopalian church, viz. those of Edinburgh and Fife, Glasgow, Aberdeen, Moray, Ross, Dunkeld, and Brechin; and the congregations of

(c) The general assembly owes its institution to the parliament that met in 1560, by consent of Francis and Mary, to regulate the affairs of the nation and the church; and the first assembly was held in that year.

Scotland. of this persuasion are numerous and respectable. The Methodists and Anabaptists are also numerous, but the Quakers are few in number.

893 Language. It is well known that there prevail in Scotland two languages that are extremely different in their nature and origin, the Earse or Gaelic, spoken in the Highlands and in the Western Islands, and the Lowland Scotch, spoken in the remaining parts of the country. Of the Gaelic language we have already treated at some length in the article PHILOLOGY, N° 205 *et seq.*; and shall here only give a specimen of that language in the Lord's prayer, contrasting it with the Norse language as formerly spoken in the Orkneys, and with the ancient form of the Lowland Scotch.

Lord's Prayer in Gaelic.

A n'Athair ata air Neamh. Gu naamhaichear t-Tinm. Tigeadh do Rioghachd. Deanthar do Thoil air an Talamh mar a nithear air Neamh. Tabhair dhuinn an diu ar n-Aran laitheil. Agus maith dhuinn ar Fiacha amhuil mar mhaitmid d'ar luehd-fia chaibh. Agus na leig am buaireadh sinn. Ach saor sinn o ole. Amen.

Lord's Prayer in the Orkney Norse Language.

Favor ir i chimre. Helleur ir i namthite. Gilla cosdum thite cumma. Veya thine mota vara gort o yurn sinna gort i chimrie. Ga vus da on da dalight brow vora. Firgive vus sinna vora sin vee forgive sindara mutha vus. Lyve us ye i tuntation. Min delivira vus fro olt ilt. Amen; or, on sa meteth vera.

Lord's Prayer in Old Scotch.

Uor fader quhilk beest i Hevin. Hallowit weird thyne nam. Cum thyne kingrik. Be dune thyne wull as is i hevin sva po yerd. Uor deilie breid gif us thilk day. And forleit us uor skaths, as we forleit tham quha skath us. And leed us na intil temtation. Butan fre us fra evil. Amen.

By comparing the above specimens, it will be evident, that both the Norse of the Orkneys, and the old Lowland Scotch are essentially different from the Gaelic, but that the two former have some distant resemblance to each other, which may lead an etymologist, without any great stretch of fancy, to believe that they originated from the same source. It has indeed been very generally believed, and almost taken for granted, that the language spoken in the Lowlands of Scotland is merely a corrupt dialect of the Anglo-Saxon, and that it was introduced into Scotland from South Britain at no very early period. The learned author of *Caledonia* is decidedly of this opinion, and contends that, previous to the establishment of a Saxon monarch on the throne of Scotland in the person of Edgar, son of Malcolm Canmore, no other language but Gaelic was spoken in North Britain, except in Lothian, which may be considered as then an English settlement. He further declares that the oldest document which he has met with in the Scottish language, is a contract with the magistrates of Edinburgh in 1387.

There can be no doubt of the affinity between the Lowland Scotch and the Anglo-Saxon. The only matter in dispute is, whether the latter was borrowed from the former, or was a dialect of the same Gothic language introduced into Scotland at an earlier period. One of the most strenuous, and perhaps successful advocates for the latter opinion is Dr John Jamieson, who in his elaborate work on the Scottish language has ably controverted the arguments of Mr Chalmers, and pleaded for the independent origin of the Scottish language. This is believed by Dr Jamieson to have been spoken by the Picts, and to have been brought by them from Scandinavia; for he is decidedly of opinion, in opposition to Mr Chalmers, that the Picts were not a remnant of the ancient Caledonians under a new name, but an independent Gothic tribe, who at a very early period established themselves in the north of Scotland. (D)

There are two principal peculiarities in the Scottish language; the use of the *quh* at the beginning of words, where the English use the *wh*, and the change of the Anglo-Saxon *th* into *d*; both which peculiarities are evidently borrowed from the northern Gothic languages.

In their pronunciation of the vowels, the Scotch follow the method of the French, and other nations of the continent, though, as in England, this general custom is subject to many anomalies. Thus the *a*, which in *man*, and most other words, is pronounced broad, is, in *Father*, and a few other instances, pronounced open, *Feyther*.

894 Literature. Scottish literature cannot be traced to an early period. In the middle ages it consisted, like that of other countries, in little more than meagre chronicles, composed by ill-informed and credulous monks. Indeed, according to Mr Pinkerton, the country that produced Buchanan in the 16th century, could not in the 12th boast of a single native writer. It first began to dawn in the 13th century, when Scotland, filled with a barbarous Scandinavian colony, cannot be compared, in respect of literature, with the southern countries of England and Ireland; but with Scandinavia itself, with Holland and with the north of Germany, with Poland, Prussia, Russia, and Hungary. In all these countries literature is comparatively recent, and compared with them, Scotland will not be found deficient. It must not indeed be forgotten, that in the sacred ground of Iona flourished several respectable Scoto-Irish writers, who were also classed among the apostles of religion in England, such as the biographers of Columba, Cumenius, and Adamnan, the latter the friend of the English historian

(D) We have in the early part of this article, perhaps too hastily, adopted Mr Chalmers's opinion, that the Picts were not an independent race. The arguments which Mr Chalmers has adduced in support of this opinion, so opposite to that of most antiquaries and historians, are ingenious and plausible; but as they are drawn chiefly from the names of places, rivers, &c. in North Britain, which are allowed on all hands to be generally Celtic, and are in direct opposition to the testimony of Bede, the earliest British historian, Dr Jamieson will not allow that they have the weight which at first sight they appear to merit.

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torian Bede; and among the Strathclyde Gaels, may be noticed St Patrick, the apostle of Ireland.

The earliest fragment of Scottish literature is the *Chronicon Pictorum*, supposed to have been written by some Irish priest, in the beginning of the 11th century. Of the 12th century there are some fragments of the register of St Andrew's, some short chronicles published by Father Innes; the chronicle of Melrose, and that of Holyrood. Towards the conclusion of the 13th century, appeared some writers of considerable estimation, particularly Michael Scot a philosopher, mathematician and physician, and also celebrated as an astrologer and alchemist, who published voluminous commentaries on the works of Aristotle; Thomas Learmont of Ercildoun, commonly called Thomas the Rhymer, famous for his poetical compositions, and his skill in heraldry, who wrote a metrical romance called Sir Tristrem; and John Scot of Dunse, or Duns Scotus, a consummate metaphysician and voluminous writer. In the 14th century lived John of Fordoun, the author of *Scoto-Chronicon*, a historical work of considerable merit, and John Barbour, archdeacon of Aberdeen, who wrote a poem on the actions of Robert I., which is no mean monument of the industry and talents of that age. King James I. who flourished in the beginning of the 15th century, may be ranked as the next Scottish writer of eminence. He was a learned and accomplished prince, and was the author of some excellent poems. James was followed by Holland and Harry the Rhymer. In the 16th century we may notice Elphingston, bishop of Aberdeen, who composed the *Scoticorum Chronicum*, and was distinguished both for learning and piety; Dunbar, the chief of the ancient Scottish poets; Gavin Douglas, bishop of Dunkeld, who published an excellent poetical translation of Virgil's Eneid, and David Lindsay of the Mount. John Knox, the chief instrument and promoter of the reformation; John Major and Hector Böethius, two historians of considerable note, also belonged to this century; and the admirable Crichton must not be forgotten, though the usual accounts that have been given of his accomplishments are strongly tinctured with fable and romance. At the latter end of the same period flourished the classical Buchanan, an elegant historian and Latin poet, and John Leslie bishop of Ross, the author of many esteemed works, who was versed in theology and philosophy, in the civil and canon law, and was besides an able statesman.

The learned Archbishop Spottiswood, published a judicious ecclesiastical history of Scotland: and the natural history of this country was illustrated by Sir Andrew Balfour and Sir Robert Sibbald, two of its greatest ornaments. The discovery of logarithms in the beginning of the 17th century, is the indisputable right of Napier of Merchiston; and since his time, mathematical science has been cultivated in Scotland with singular success. The works of Keil, Gregory, Maclaurin, Simson, Stewart, Robison, Playfair, &c. are universally read and admired. During the 18th century this country produced other eminent writers in various departments of science. Among the Scots divine and moral philosophers, we may particularize Blair, Campbell, Hutcheson, Leechman, Macknight; among the statesmen and lawyers. Sir George Mackenzie, Viscount Stairs, Sir Thomas Craig, Lord Kames; among the historians, Hume, Robertson, Henry, Lord Hailes, Ferguson; among the political and moral writers, Smith, Reid, Lord Monboddo, Beattie; among the physicians and surgeons, Bell, Black, Cullen, Gregory, William and John Hunter, Hutton, Monro, Smellie, Whytt; and among the Scottish poets, Blair, Burns, Home, Ramsay, Thomson. Wilkie. The names now mentioned, besides Mansfield and Burnet, may be sufficient to show that Scotland has produced able writers in almost every useful branch of science. Among the few departments of literature in which Scottish writers have been less successful, may be mentioned biography, epic poetry, the critical illustration of the classics and comedy. * Indeed the efforts of the dramatic muse have been singularly damped in Scotland from the fanatical prejudices of its clergy; but we trust that these illiberal prejudices have now subsided. and that the venerable author of Douglas will stand on record as the last example of ecclesiastical censure, on account of his devotion to the drama.

* See *Pinkerton's Geography*, vol. i. and *Playfair's* vol. ii.

Within the last 20 years, the progress of Scottish literature has perhaps been greater than at any former period. During that interval, booksellers shops have been established, where formerly there was scarcely a book-stall, and there are now few towns of any consideration that do not possess a printing-press. The increase of newspapers and periodical publications, especially in the capital of Scotland, is also very great, there being now published at Edinburgh not fewer than six monthly and quarterly reviews and magazines, and at least eight newspapers.

895 State of the arts.

The progress of the arts in Scotland has of late scarcely fallen short of that of the sciences. Skilful workmen in the mechanic arts, especially in those of joinery and cabinet-making, are numerous in the large towns; and even musical instruments of considerable price and excellent workmanship, are constructed in Edinburgh. The liberal arts of painting and engraving have been carried to great perfection; and both these and the art of printing are now exercised in Edinburgh in a style little, if at all, inferior to that of the London artists. The numerous public and private buildings in Edinburgh and Glasgow, bear ample testimony to the abilities of Scottish architects, and show that they are by no means behind their brethren of the south in grandeur and beauty of design, and elegance and solidity of execution.

896 Education.

The mode of education pursued in Scotland is highly laudable; and is, perhaps, the best practical system pursued in any country in Europe. The plan which is followed in the cities, is nearly the same with that in England, either by private teachers, or at large public schools, of which the high school of Edinburgh is the most eminent, and may be traced back to the 16th century. The superior advantage of the Scottish education consists in every country parish possessing a schoolmaster as uniformly as a clergyman; at least, the rule is general, and the exceptions rare. The schoolmaster has a small salary, which enables him to educate the children at a rate easy and convenient even to indigent parents. It may, indeed, be computed, that a shilling will go as far in this parochial education, as a guinea in an English school. In the Highlands, the poor children attend to the flocks in summer, and the school in winter. Till within these few years, the salaries of the Scotch parochial schoolmasters were so triflingas to hold out no adequate encouragement to young men of abilities to engage in that useful office; but they have lately

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been augmented, and the establishment of a fund for the widows of schoolmasters in Scotland, has added to the respectability of the situation.

A great majority of the Scottish youth are educated for the church, and from this class the families of the gentry are generally supplied with private tutors, and the schools and academies with masters. It has been observed by Mr Laing, that "the poverty of the church of Scotland is peculiarly unfavourable to the pursuit of letters; her universities make no provision for the independence and ease of a studious life. The wealthy benefices of the English church may afford a final retreat, and its well endowed universities, an intermediate sanctuary for literary repose, where a taste for classical and polite learning is cultivated and preserved. But the Scottish clergy, who are removed from the university early in life, to a remote solitude, have neither access to the works of the learned, nor the means, if they retain the desire, of improving the acquisitions which they have already made. No one is illiterate; but the church has not yet been distinguished by a man of extensive or profound erudition. Their education imparts some smattering of science; their trials of ordination require an equal proportion of Greek and Hebrew; and the same parity is observable in the learning and in the discipline of the church." *

* *Laing's Hist. of Scotland*, vol. iii. p. 479.

897 Universities.

There are in Scotland four universities, viz. those of St Andrew's, Aberdeen, Glasgow, and Edinburgh; a particular account of which will be found under those articles. The university of Edinburgh, though of most recent origin, is now in the highest estimation; from the numerous departments of science and literature there taught, and the general ability of its professors. The Scotch universities, unlike those of England, seldom consist of more than one college, and St Andrew's may be considered as the only proper exception to this observation, as the colleges of Aberdeen are in distinct towns, viz. the one in Old, and the other in New Aberdeen. There are professors of medicine at all these universities; but only Edinburgh and Glasgow can be regarded as medical schools.

898 Agriculture.

We can here only enter on a few general observations respecting Scottish agriculture, as the state of husbandry in Scotland may be best seen from the general description given of the several counties, and from the article AGRICULTURE. In the lower districts particularly, agriculture has arrived at a great degree of perfection. In the counties of Berwick, East Lothian, Ayr, Lanark, Stirling, Perth, Angus, and Mearns, the face of the country has, in consequence of the improved cultivation, assumed a new appearance, being highly cultivated, and generally inclosed with thorn hedges, instead of the former inclosures of stone dykes. Rich crops of wheat, barley, clover and turnips, are now raised on fields which some years ago afforded only scanty pasturage for sheep; and potato crops are now become general and excellent. Of the mountainous districts, black cattle and sheep are the staple commodities, and the rocky shores produce abundance of kelp. In a few years the deficiency of timber, so much complained of by southern travellers, will be abundantly supplied, as many proprietors are now covering their waste lands with extensive forests. One nobleman, the earl of Moray, from 1767 to 1807, planted upwards of 13,000,000 of trees, of which 1,500,000 are oak. The value of land in Scotland is within these few years prodigiously increased, and an Englishman will scarcely believe, that in some parts of Scotland extensive farms are let at 5*l.* and even 6*l.* per acre. *

* *Playfair's Geog.* vol. ii. p. 547.

As the valued rent of land is intimately connected with the progress of agricultural improvement, we shall here give a table of the rental of the several Scotch counties, as it has been valued in Scotch money.

Counties.	Valued rent in Scots Money.		
Aberdeen	L.235,665	8	11
Argyle	149,595	10	0
Ayr	191,605	0	7
Banff	79,200	0	0
Berwick	178,365	7	3½
Bute and Arran	15,022	13	8
Caithness	37,256	2	10
Clackmannan	26,482	10	10
Cromarty	12,897	2	8
Dumbarton	33,327	19	0
Dumfries	158,627	10	0
Edinburgh	191,054	3	9
Elgin	65,603	0	5
Fife	362,534	7	5
Forfar	171,636	0	0
Haddington	168,878	5	10
Inverness	73,188	9	0
Kincardine	74,921	1	4
Kinross	20,192	11	2
Kirkcudbright	114,571	19	3
Lanark	162,118	16	11
Linlithgow	74,931	19	0
Nairn	15,163	1	1
Orkney and Shetland	56,551	9	1
Peebles	51,937	3	10
Perth	339,818	5	8
Renfrew	68,076	15	2
Ross	75,140	10	3
Roxburgh	315,594	14	6
Selkirk	80,307	15	6
Stirling	108,518	8	9
Sutherland	26,193	9	9
Wigton	67,646	17	0
Total,	L.3,802,574	10	5½ Scots.
Or, Sterling,	L.316,881	4	2½

899 Manufactures and commerce.

The inhabitants of North Britain can scarcely be regarded as a commercial people before the end of the eleventh century, when the accession of Edgar, by placing a line of Saxon monarchs on the Scottish throne, introduced into Scotland that spirit of trade and commerce, which at an early period distinguished the Saxon inhabitants of South Britain. It has indeed been pretended that the Scotch had a fishery at home, and a foreign traffick with the Dutch, as early as the beginning of the ninth century; but the former is improbable, since the religious prejudices of the Gaelic people led them to regard fish as unhallowed food, and fishery as an unlawful occupation; and the latter assertion is at least incorrect, since the Dutch did not exist as a commercial society at that early period. The chief seats of trade have, in all ages, and

and in every country, been the towns; but Celtic Scotland had neither towns nor cities, till the erection of castles and monasteries, subsequent to the eleventh century, produced the formation of villages under their walls. These villages became towns, from the settlements of the English, Anglo-Normans, and Flemings in them, during the 12th century; and from that time we may properly date the commencement of Scottish commerce.

At a period little anterior to this, the Scotch carried on several domestic manufactures. They manufactured their own flax into linen, and their hides into leather. They also wrought the wool of their flocks into coarse cloth: and these woollen fabrics were regulated by a particular assize during the reign of David I. Necessity had early introduced smiths, tanners, and shoemakers, into every village, and dyers, goldsmiths, and armourers, into every town. Salt works became an object of attention in the reign of David I., because they furnished a revenue to the kings and nobles, and profit to the monks. In the same reign, water-mills were subject to tithes, and tenants were obliged to grind at particular mills. The Scottish kings had mills at each of their burghs, and on several of their manors; and from these mills they derived a considerable revenue, and a constant source of munificent grants to the religious establishments. Before the middle of the thirteenth century, wind-mills had been universally introduced, and there was a malt kiln and a brew-house in every village. These objects were considered as domestic manufactures, arising from husbandry, which was at that time the universal pursuit among all ranks, from the prince to the peasant.

It is curious to observe, that Scone was not only the metropolis of Scotland at the beginning of the Scoto-Saxon period, but also one of the earliest places of foreign commerce. Perth had also a foreign traffick in those early times, and St Andrew's partook of the riches which flow from distant trade. Next to these, in the advantages resulting from a commercial intercourse with foreign nations, followed Stirling, Inveresk, Dunfermline and Aberdeen.

The erection of certain towns into royal burghs, though founded on the principles of exclusion and monopoly, tended to advance the general interests of trade. Each of these burghs had particular districts through which their privileges extended, and to which they were confined. Towards the conclusion of the Scoto-Saxon period, the Flemings had placed a commercial factory at Berwick, and before the death of Alexander III. a trade had been opened with Gascony, for the importation of wine and corn.

The first great traders in Scotland seem to have been the heads of monasteries, as they alone possessed at once the spirit of commercial enterprise, and a sufficient capital to engage in promising speculations. To them belonged the principal ships; they had at first the exclusive privileges of fishing, and they were the chief bankers of those times.

After the numerous conflicts and revolutions which disturbed the peace of Scotland, previous to its union with England, its manufactures were not probably in a much better state of improvement at that epoch, than they had been at the death of Alexander III. They had been sometimes encouraged, but they seem never to have advanced beyond the domestic supply. Of course the commerce of North Britain could never have been very extensive, and its exports must have been confined chiefly to corn, and the raw products of the country. Since the union, the industry and manufactures of Scotland have been assiduously cultivated, and the attempts at improvement in the national commerce have, in the tedious result, proved successful beyond expectation. The establishment of the Royal Bank, and of the society for the improvement of agriculture in the reign of George I., and the subsequent establishment of a board of trustees for improving the manufactures, trade, and fisheries of North Britain, have been the means of adding greatly to the riches and prosperity of the country. *

* See *Chalmers's Caledonia*, vol. i.

Since the union, this country has shared in the national prosperity. Towards the middle of last century, manufactures began to flourish, and trade increased in due proportion. Without troubling the reader with a detail on this subject, it may be sufficient to observe, that, about 20 years ago, manufactures in many towns were carried on to a great extent. Cotton cloths alone employed in Glasgow, and its neighbourhood, 15,000 looms and 135,000 persons. Queen's ware, and the inkle manufacture, were likewise important branches in that city. In and near Paisley, upwards of 10,000 persons of all descriptions, were employed, in the manufacture of silk gauze, and 12,000 in working lawns, muslins, and cambrics; besides other trades, which were very productive. Common and flint-glass, to a great amount, is prepared in Dumbarton, Leith, and other parts of the country. Diapers are wrought in Dunferline to the value of 50,000*l.* or 60,000*l.* a year. Checks and ticks are staple commodities in Kirkaldy. Coarse linen, sail-cloth, osnaburgs, &c. are manufactured in Dundee, Arbroath, Aberdeen, and Forfar. Paper-mills, delft-houses, and sugar-houses, have been erected in several towns and villages. Extensive iron-works are established in Fife, on the Clyde, and at Carron; in the last of which more than 1000 workmen are occasionally employed. The whale, herring, and salmon fisheries, are inexhaustible sources of wealth. The coal trade is well known, and extremely productive. Here it may not be improper to state, that the limits of the coal country on the west coast, are Saltcoats and Girvan; on the east coast, North Berwick and Fifeness; stretching from south-west to north-east in breadth, about 30 or 40 miles. Beyond these limits, no coal strata have hitherto been found. The exportation of black cattle to England has been highly advantageous to this country. The coasting trade to the south is carried on from Leith and other eastern ports, while Glasgow is the great emporium with the West Indies. †

† *Playfair's Geog.* vol. ii. 900

Another subject connected with commerce is the *inland navigation*. The canals of Scotland are the Forth and Clyde, the Crinan (see CANAL), the Monkland, running 12 miles east from Glasgow, the Ardrossan, the Caledonian, and the Union canal, to extend from Edinburgh to Falkirk; the two latter are not yet finished.

Inland navigation.

Scotland. The following Tables by Sir John Sinclair (10th volume, Pamphleteer), afford the best view of the Statistics of Scotland hitherto published.

EXTENT.

	Square miles. Land.	Fresh-water lakes.	Totals.
1. Mainland of Scotland	25,520	494	26,014
2. Hebrides - -	2,800	104	2,904
3. Orkney Islands -	425	15	440
4. Zetland Isles - -	855	25	880
	29,600	638	30,238

STATE OF PROPERTY.

	Proprietors.
1. Large properties, or estates above 2000*l.* of valued rent, or 2500*l.* sterling of real rent - - - - - - -	396
2. Middling properties, or estates from 2000*l.* to 500*l.* of valued rent, or from 2500*l.* to 625*l.* of real rent - - -	1077
3. Small properties or estates under 500*l.* valued rent, or 625*l.* of real rent - -	6181
4. Estates belonging to corporate bodies - -	144
Total proprietors in Scotland -	7798

PROPORTION OF SOIL CULTIVATED AND UNCULTIVATED.

	English Acres.
1. Number of acres fully or partially cultivated - - - -	5,043,050
2. Acres uncultivated, including woods and plantations - - -	13,900,550
Total extent of Scotland in English acres	18,943,600

EXTENT OF WOODS AND PLANTATIONS.

	English Acres.
1. Extent of plantations - - -	412,226
2. ——— natural woods - - -	501,469
Total	913,695

NATURE OF THE PRODUCTIVE SOILS IN SCOTLAND.

	English Acres.
1. Sandy soils - - - - - -	263,771
2. Gravel - - - - - -	681,862
3. Improved mossy soils - - -	411,096
4. Cold or inferior clays - - -	510,265
5. Rich clays - - - - - -	987,070
6. Loams - - - - - -	1,869,193
7. Alluvial, haugh, or carse land -	320,193
	5,043,450

NUMBER OF ACRES IN ONE YEAR UNDER THE DIFFERENT CROPS, OR IN FALLOW.

	Acres.
1. Grass (in hay and pasture) - -	2,489,725
2. Wheat - - - - - -	140,095
Carry over	2,629,820
Brought over	2,629,820
3. Barley - - - - - -	280,193
4. Oats - - - - - - -	1,260,362
5. Rye - - - - - - -	500
6. Beans and peas - - -	118,000
7. Potatoes - - - -	80,000
8. Turnips - - - -	407,125
9. Flax - - - -	16,500
10. Fallow - - - -	218.950
11. Gardens and orchards - -	32,000
	5,043,450

VALUE OF CROPS.

	Acres.	Per acre.	Amount.
1. Grass lands -	2,489,725	at L.2,	L.4,979,450
2. Wheat - -	140,095	at 11,	1,541,045
3. Barley -	280,193	at 8,	2,241,544
4. Oats -	1,260,362	at 7,	8,822,534
5. Rye - -	500	at 6,	3,000
6. Beans and peas	118,000	at 6,	708,000
7. Potatoes -	80,000	at 8,	640,000
8. Turnips - -	407,125	at 4,	1,628,500
9. Flax - -	16,500	at 8,	132,000
10. Gardens -	32,000	at 15,	480,000
Productive acres	4,824,500	Produce	L.21,176,073
Fallow -	218,950		

Total cultivated - 5,043,450, average *p.* acre (including fallow), 4*l.* 4s. nearly.
Uncultivated 13,900,550, including wood lands, 3s. per acre - - - 2,085,082

Total land produce L.23,261,155

LIVE-STOCK, AND THEIR PRODUCE.

1. Horses, 243,489. Value of their work when full grown, or increase in their work while young, yearly, at 10*l.* each - -	L.2,434,890
2. Cattle, 1,047,142. Annual value of dairy produce, and annual increase in the worth of the feeding cattle, at 6*l.* each - - - -	6,282,852
3. Sheep, 2,850,867 - - -	1,425,983
4. Hogs, 500,000, produce 30s. each -	750,000
5. Lesser stock (poultry, &c.) - -	250,000
Total produce of live-stock	L.11,143,725

This sum is included in the general estimate of land produce already given.

MINERAL STATE.

Coal.

1. Extent of the great coal-field of Scotland - -	600,000 acres.
2. Annual consumption - -	172 do.
3. Quantity annually consumed -	2,500,000 tons.
4. Value of the coal annually consumed, at an average of 6s. 8d. per ton - - -	L.833,333
5. Expense of labour, 5s. 10d. per ton	729,166
6. Rent to the proprietor, 10d. per ton	104,060

Lime.

1. Quantity of lime annually manufactured in Scotland - - - 3,000,000 bolls.
2. Quantity in Winchester bushels, at 4 bushels per boll - - 12,000,000 do.
3. Value at 2s. 6d. per boll - L.375,000
4. Extent of land annually dressed with lime - - - 100,000 acres.

Iron.

1. Number of blast furnaces - 21
2. Quantity annually produced - 32,760 tons.
3. Value at 7*l.* per ton - - L.229,320
4. Number of persons annually employed - - - 7,650

Lead.

1. Quantity of lead annually produced 65,000 bars.
2. Annual value at 2*l.* per bar - L.130,000

Value of Mineral Productions.

1. Coal - - - -	L.833,333
2. Lime - - - -	375,000
3. Iron - - - -	229,320
4. Lead - - - -	130,000
5. Various articles - - - -	30,000
	L.1,597,653

FISHERIES.

1. Salmon and fresh-water fisheries -	L.150,000
2. The white-sea fishery - -	400,000
3. The herring fishery - - -	500,000
4. The whale fishery - - -	200,000
5. Shell fish - - - -	50,000
	L.1,300,000

AMOUNT OF TERRITORIAL PRODUCTIONS.

1. Gross produce of land - -	L.23,261,155
2. Minerals - - -	1,597,653
3. Fisheries - - - -	1,300,000
	L.26,158,808
4. The rents of lands, mines, fisheries, kelp, &c. for one year ending 5th April 1813 - -	5,041,779
5. Amount of produce absorbed by the expense of cultivation, and the profit of farmers, gardeners, and other dealers in the productions of the soil, also by colliers, fishermen, &c. - -	L.21,117,029

MANUFACTURES OF SCOTLAND.

	Value of raw materials.	*Total value of manufactured articles.*	*Expense of labour and profit.*
1. Woollen -	300,000	450,000	150,000
2. Linen -	834,149	1,775,000	940,851
3. Cotton -	1,832,124	6,964,486	5,132,362
4. Inferior branches	1,300,000	5,000,000	3,700,000
	4,266,273	14,189,486	9,923,213

COMMERCE.

1. Number of ships belonging to Scotland -	2,708
2. Tonnage - - -	231,273
3. Number of seamen - -	16,300
4. Exports - - -	L.4,740,239
5. Imports - - - -	3,671,158
6. Balance in favour of Scotland	L.1,069,081

THE POOR.

1. Number of parochial poor -	36,000
2. Average allowance to each -	L.3 0 0
Total expense	L.108,000

Average expense of maintaining the poor in workhouses, 8*l.* 10s.

REPRESENTATION OF THE LANDED INTEREST.

1. Number of representatives - -	30
2. Number of freeholders in the 33 Scotch counties - - -	2,429
3. Number of landholders entitled to vote, if the whole valued rent of the kingdom were held by persons each possessing 400*l.* Scots of valued rent - -	9,511

BOROUGH REPRESENTATION.

1. Number of representatives - -	15
2. Number of boroughs - - -	65
3. Population of ditto - -	471,417

ECCLESIASTICAL STATE OF SCOTLAND.

1. Number of synods - - -	16
2. Number of presbyteries - -	78
3. Number of parishes - -	893
4. Number of established clergymen -	938

RELIGIOUS PERSUASIONS.

1. Established Presbyterian Church -	1,408,388
2. Seceders (Presbyterians,) - -	256,000
3. Baptists, Bereans, Glassites, &c. -	50,000
4. Roman Catholics - - -	50,000
5. Scotch Episcopalians - -	28,000
6. Methodists - - -	9,000
7. Church of England - - -	4,000
8. Quakers - - - -	300
	1,805,688

901 Manners and Customs.

"The Scotch (says Dr Playfair) are commonly divided into two classes, viz. the *Highlanders* and *Lowlanders;* the former occupying the northern and mountainous provinces, the latter the southern districts. These classes differ from each other in language, manners, and dress. The Highlanders use the Irish or Celtic tongue; while, in the low country, the language is the ancient Scandinavian dialect blended with the Anglo-Saxon.

"About half a century ago, the Highlands of Scotland were in a state somewhat similar to that of England before the Norman conquest. The inhabitants were divided into tribes called *clans.* The inferior orders were vassals of particular chiefs, to whom they were attached, and on whom they relied for that safety which the laws were not alone able to ensure to them. On

Scotland. the other hand, the security and consequence of a chieftain depended on the number and fidelity of his servants and retainers; who, on account of their relation to him, assumed a dignity, and acquired in their manners a degree of politeness, to which other uncivilized nations are strangers.

"The rents of farms which those vassals occupied were inconsiderable, and paid chiefly in military service; so that the value of a proprietor's land was estimated, not by the money it produced, but by the men whom it could send into the field; and that the number of dependents might be increased, the farms, or allotments of land, were small, and barely sufficient for a scanty subsistence to the tenants. As an inconsiderable proportion of the country was cultivated, and as no intercourse subsisted between the inhabitants and other nations, little time was employed in agriculture and commerce. Most of it was wasted in indolence or amusement, unless when their superior summoned them to avenge, on some neighbouring tribe, an insult or injury. No more grain was raised, and no more raiment manufactured by any family, than what barely sufficed itself.

"Villages and hamlets, situated in valleys for shelter, were rudely constructed of turf and stone. In spring the natives ploughed, or dug, some adjacent patches of soil, in which barley or oats were sown; in summer they prepared and collected turf and peat for fuel; in autumn they gathered in their scanty crops of grain and hay; and the remainder of the year was devoted to pastime, or predatory excursions. In winter evenings, around a common fire, the youth of both sexes generally assembled, for the song, the tale, and the dance. A taste for music was prevalent among them. Their vocal strains were plaintive and melancholy; their instrumental airs were either lively for the dance, or martial for the battle. Every family of note retained an historian, to narrate its heroic deeds and feats of valour, or a bard who sung the praises of the chieftain and his clan. Some fragments of their poetry have been handed down from remote ages, and recently moulded into heroic poems. Strangers, who have ventured to penetrate into their fastnesses, they received and treated in the most hospitable manner; but themselves seldom went abroad, except for the purposes of devastation or plunder.

"Their dress was the last remain of the Roman habit in Europe, well suited to the nature of the country and the necessities of war. It consisted of a light woollen jacket, a loose garment that covered the thigh, and a bonnet that was the usual covering for the head all over Europe, till the hat was introduced towards the end of the 16th century.

"Always armed with a dirk and pistols, they were ready to resist an assault, or revenge a provocation, as soon as it was given. This circumstance contributed to render them polite and guarded in their behaviour to one another. When embodied by their chieftain, they were armed with a broad sword, a dagger, a target, a musket, and two pistols. In close engagement, and in broken ranks, they were irresistible. The only foe they dreaded was cavalry. As soon as the battle was over, most of the troops dispersed, and returned home to dispose of their plunder, and to provide for their families.

"Their religion was deeply tinctured with superstition. They believed in ghosts and apparitions; by appearances in the heavens they predicted future events; they practised charms and incantations for the cure of various diseases; and to some individuals they thought the Divinity had communicated a portion of his prescience.

"But the state of society in the Highlands has been greatly changed and ameliorated since the rebellions in 1715 and 1745. The Roman dress and the use of arms were prohibited by government; roads, constructed at vast expense, opened an easy communication with the low country; and the courts of barons were suppressed by the jurisdiction act. The heads of clans have now ceased to be petty monarchs, and the services of their vassals are no longer requisite for their defence or aggrandisement. Divested of their legal authority, they now endeavour to preserve their influence by wealth. With this view their attention is directed to the improvement of their estates. Their ancient mode of living is also entirely altered; and the Highland gentleman, in every respect, differs little from a proprietor of the like fortune in the southern counties. A spirit of industry has been excited among the tenants, while in many places arts and manufactures are encouraged.

"The manners, habits, and dress, of the gentlemen in the low countries, resemble those of their English neighbours, with whom they have frequent intercourse. The peasantry and middle class are sober, industrious, and good economists; hospitable and discreet, intelligent, brave, steady, humane, and benevolent. Their fidelity to one another is a striking feature in their character. In their mode of living and dress there are some peculiarities, but these are gradually wearing out. Within these few years the use of pottage and bread of oatmeal, is almost disused among the commonalty; and tea, wheaten bread, and animal food, are as frequent on the north as on the south of the Tweed." * * Playfair's Geog. vol. ii. p. 542.

902 Diet.

Though the diet of the superior classes in Scotland differs little from that of the same rank in England, there are still some peculiarities not generally known to strangers, which deserve notice. Among the peculiar Scotch dishes we may enumerate the *haggies*, a sort of hash, made of the lungs, heart and liver, of a sheep, minced fine, and mixed with suet, oatmeal, onions, pepper, and salt, and boiled in the sheep's maw or stomach; *hotchpotch*, a soup, prepared from mutton or lamb, cut into small pieces, with a large quantity of green peas, carrots, turnips, onions, and sometimes celery or parsley, served up to table with the meat and vegetables in the soup; *cockie-leekie*, a soup made of a cock or capon, with a large quantity of leeks; *crappit-heads*, i. e. the heads of haddocks stuffed with a pudding made of the soft roe, or butter, oatmeal, onions, and spices, and boiled; *fish and sauce*, a sort of stew, made of haddocks, whitings, or codlings, stewed with parsley, onions, butter, and spices; and the celebrated old dish of *singed sheep's head*, i. e. a sheep's-head, with the skin on, and the wool singed off with a hot iron, well boiled with carrots, turnips, onions, &c. so as to form a rich broth, which is generally served up distinct from the meat.

903 Amusements.

The public amusements in Scotland nearly resemble those of England, especially among the higher classes. There

There are, however, two games which may be considered as peculiar to the Scotch. These are *golf* and *curling*. Of the former we have given an account under the article GOLF. The diversion of curling, which is we believe unknown in England, is adapted only to frosty weather, and is played on the ice, by sliding from one mark to another, large stones, of from forty to seventy pounds weight, of a hemispherical shape, very smooth on the flat side, and furnished with an iron or wooden handle at top. The great object of the player is to lay his stone as near to the mark as possible, to guard that of his partner which had before been placed in a good position, or to strike off that of his antagonist. To attain these ends much skill and dexterity are often required; and the great art of the game is to make the stones bend in towards the mark, when this is so blocked up by other stones that they cannot reach it by being directed in a straight line.

To conclude: The union having incorporated the two nations of England and Scotland, and rendered them one people, the distinctions that had subsisted for many ages are gradually wearing away. Peculiarities disappear; similar manners prevail in both parts of the island; the same authors are read and admired; the same entertainments are frequented by the elegant and polite; and the same standard of taste and of language is established throughout the British empire.

New SCOTLAND. See *Nova Scotia*.

SCOTO-IRISH, in *History*, an epithet applied, by some writers on Scottish antiquities, to the colony of Irish, commonly called *Dalriads* or *Dalriadinians*, who, in the beginning of the sixth century, established themselves in the district of Galloway; and formed a distinct tribe, till, under the reign of their king Kenneth II. they united with the Picts, whom they had nearly subdued. See Chalmers's *Caledonia*, vol. i. and SCOTLAND, from N° 31. to N° 85.

SCOTO-*Saxon* period, is by Mr Chalmers applied to that period of Scottish history which elapsed from the accession of Edgar, the son of Malcolm Canmore, to the throne of Scotland in the year 1097, to the reign of Robert Bruce in 1306. See SCOTLAND from N° 86. to N° 164.

SCOTOMIA, in *Medicine*, a vertigo, accompanied with dimness of sight, frequently the forerunner of an apoplexy.

SCOTT, JOHN, an eminent English divine, was born in 1638, and became minister of St Thomas's in Southwark. In 1684 he was collated to a prebend in the cathedral of St Paul's. Dr Hickes tells us, that, after the revolution, "he first refused the bishopric of Chester, because he would not take the oath of homage; and afterwards another bishopric, the deanery of Worcester, and a prebend of the church of Windsor, because they were all places of deprived men." He published several excellent works, particularly The Christian Life, &c. and died in 1695. He was eminent for his humanity, affability, sincerity, and readiness to do good; and his talent for preaching was extraordinary.

SCOTUS, DUNS. See DUNS.

SCOTUS, *John*. See ERIGENA.

SCOUGAL, HENRY, second son of Patrick Scougal, bishop of Aberdeen, was born, June 1650, at Salton in East Lothian, where his father, the immediate predecessor of Bishop Burnet, was rector. His father, designing him for the sacred ministry, watched over his infant mind with peculiar care; nor was his care bestowed in vain. He had soon the satisfaction of perceiving the most amiable dispositions unfold themselves, and his understanding rise at once into the vigour of manhood. Relinquishing the amusements of youth, young Scougal applied to his studies with ardour; and, agreeable to his father's wish, at an early period he directed his thoughts to sacred literature. He perused the historical parts of the Bible with peculiar pleasure, and then began to examine its contents with the eye of a philosopher. He was struck with the peculiarities of the Jewish dispensation, and felt an anxiety to understand the reason why its rites and ceremonies were abolished. The nature and evidences of the Christian religion also occupied his mind. He perused sermons with pleasure, committing to writing those passages which most affected him, and could comprehend and remember their whole scope. Nor was he inattentive to polite literature. He read the Roman classics, and made considerable proficiency in the Greek, in the Hebrew, and other oriental languages. He was also well versed in history and mathematics. His diversions were of a manly kind. After becoming acquainted with the Roman history, in concert with some of his companions he formed a little senate, where orations of their own composition were delivered.

At the age of fifteen he entered the university, where he behaved with great modesty, sobriety, and diligence. He disliked the philosophy then taught, and applied himself to the study of natural philosophy; that philosophy which has now happily got such footing in the world, and tends to enlarge the faculties. In consequence of this, we may here observe, that when he was yet about eighteen years of age, he wrote the reflections and short essays since published; which, though written in his youth, and some of them left unfinished, breathe forth so much devotion, and such an exalted soul, as must convince us his conversation was in heaven.

In all the public meetings of the students he was unanimously chosen president, and had a singular deference paid to his judgment. No sooner had he finished his courses, than he was promoted to a professorship in the university of Aberdeen, where he conscientiously performed his duty in training up the youth under his care in such principles of learning and virtue as might render them ornaments to church and state. When any divisions and animosities happened in the society, he was very instrumental in reconciling and bringing them to a good understanding. He maintained his authority among the students in such a way as to keep them in awe, and at the same time to gain their love and esteem. Sunday evenings were spent with his scholars in discoursing against vice and impiety of all kinds, and encouraging religion in principle and practice. He allotted a considerable part of his yearly income for the poor; and many indigent families, of different persuasions, were relieved in their straits by his bounty; though so secretly that they knew not whence their supply came.

Having been a professor of philosophy for four years, he was at the age of twenty-three ordained a minister, and settled at Auchterless, a small village about twenty miles from Aberdeen. Here his zeal and ability for his great

great Master's service were eminently displayed. He catechised with great plainness and affection, and used the most endearing methods to recommend religion to his hearers. He endeavoured to bring them to a close attendance to public worship, and joined with them himself at the beginning of it. He revived the use of lectures, looking on it as very edifying to comment upon and expound large portions of Scripture. And though he endured several outward inconveniences, yet he bore them with patience and meekness. But as God had designed him for an eminent station, where he could be of more universal use in his church, he was removed from his private charge to that of training up youth for the holy ministry and the care of souls. In the twenty-fifth year of his age he was admitted professor of divinity in the king's college, Aberdeen; and though he was unanimously chosen, yet he declined a station of such importance, from a modest sense of his unfitness for it: And as he had been an ornament to his other stations of life, so in a particular manner he applied himself to the exercise of this office. After he had guarded his students against the common artifices of the Romish missionaries in making proselytes, he proposed two subjects for public exercises: the one, of the pastoral care; the other, of casuistical divinity: but there were no debates he was more cautious to meddle with than the decrees of God; sensible that secret things belong to God, and to us things revealed.

The inward dispositions of this excellent man are best seen in his writings; and the whole of his outward behaviour and conversation was the constant practice of what he preached; as we are assured by the concurring testimony of several respectable persons who knew him. How unsuitable then would panegyric be, where the subject was full of humility? and therefore let it suffice to say, that after he began to appear publicly, you see him as a professor, earnest at once to improve his scholars in human and sacred learning; as a pastor, he ceased not to preach the word, to exhort, to reprove, and to rebuke with all authority: and as a professor of divinity, he bestowed the utmost pains to convince the candidates for the ministry, of the weight and importance of that high office; that it was not to be followed for lucre, but purely to promote the worship of God and the salvation of men. Again, if we consider his private life, how meek, how charitable, and how self-denied! how disinterested in all things, how resigned to the divine will! and above all, how refined his sentiments with regard to the love of God! How amiable must he then appear! How worthy of imitation, and of the universal regret at his death! In this light we see clearly that the memory of the just is blessed.

At length his health began to be impaired by incessant study; and about the twenty-seventh year of his age he fell into a consumption, which wasted him by slow degrees. But during the whole time of his sickness he behaved with the utmost resignation, nor did he ever show the least impatience.

When his friends came to visit him, he would say, "he had reason to bless God it was no worse with him than it was. And (says he) when you have the charity to remember me in your prayers, do not think me a better man than I am; but look on me, as indeed I am, a miserable sinner." Upon the twentieth day of June 1678 he died, in the greatest calmness, in the twenty-eighth year of his age, and was buried in the King's College church in Old Aberdeen. The principal work of Scougal is a small treatise intitled, The Life of God in the Soul of Man. This book is not only valuable for the sublime spirit of piety which it breathes, but for the purity and elegance of its style; qualities for which few English writers were distinguished before the revolution.

SCOUTS, in a military sense, are generally horsemen sent out before, and on the wings of an army, at the distance of a mile or two, to discover the enemy, and give the general an account of what they see.

SCRATCH-PANS, in the English salt-works, a name given to certain leaden pans, which are usually made about a foot and a half long, a foot broad, and three inches deep, with a bow or circular handle of iron, by which they may be drawn out with a hook when the liquor in the pan is boiling. Their use is to receive a selenitic matter, known by the name of *soft scratch*, which falls during the evaporation of the salt-water. See the article *Sea-Salt*.

SCREED, with plasterers, is the floated work behind a cornice, and is only necessary when a cornice is to be executed without bracketing.

SCREW, one of the six mechanical powers, is a cylinder cut into several concave surfaces, or rather a channel or groove made in a cylinder, by carrying on two spiral plains the whole length of the screw, in such a manner that they may be always equally inclined to the axis of the cylinder in their whole progress, and also inclined to the base of it in the same angle. See MECHANICS, p. 66. N° 131.

Archimedes's SCREW. See HYDRODYNAMICS, N° 328.

Endless or *Perpetual* SCREW, one so fitted in a compound machine as to turn a dented wheel; so called because it may be turned for ever without coming to an end. See MECHANICS, p, 67. N° 135.

SCRIBE, in Hebrew ספר *sepher*, is very common in scripture, and has several significations. It signifies,

1. A clerk, writer, or secretary. This was a very considerable employment in the court of the kings of Judah, in which the Scripture often mentions the secretaries as the first officers of the crown. Seraiah was scribe or secretary to King David (2 Sam. viii. 17.). Shevah and Shemaiah exercised the same office under the same prince (2 Sam. xx. 25.). In Solomon's time we find Elihoreph and Ahia secretaries to that prince (1 Kings iv. 4.); Shebna under Hezekiah (2 Kings xix. 2.); and Shaphan under Josiah (2 Kings xxii. 8.). As there were but few in those times that could write well, the employment of a scribe or writer was very considerable.

2. A scribe is put for a commissary or muster-master of an army, who makes the review of the troops, keeps the list or roll, and calls them over. Under the reign of Uzziah king of Judah, there is found Jeil the scribe who had under his hand the king's armies (2 Chron. xxvi. 11.). And at the time of the captivity, it is said the captain of the guard, among other considerable persons, took the principal scribe of the host, or secretary at war, which mustered the people of the land (2 Kings xxv. 19.).

3. Scribe is put for an able and skilful man, a doctor of the law, a man of learning that understands affairs. Jonathan, David's uncle by the father's side, was a counsellor,

Scribe, Scribonius.

counsellor, a wise man, and a scribe (1 Chr. xxvii. 32.). Baruch, the disciple and secretary to Jeremiah, is called a *scribe* (Jer. xxxvi. 26.). And Ezra is celebrated as a skilful scribe in the law of his God (Ezra vii. 6.). The scribes of the people, who are frequently mentioned in the Gospel, were public writers and professed doctors of the law, which they read and explained to the people. Some place the original of scribes under Moses; but their name does not appear till under the judges. It is said that, in the wars of Barak against Sisera, "out of Machir came down governors, and out of Zebulun they that handle the pen of the writer." (Judges v. 14.). Others think that David first instituted them, when he established the several classes of the priests and Levites. The scribes were of the tribe of Levi; and at the time that David is said to have made the regulations in that tribe, we read that 6000 men of them were constituted officers and judges (1 Chr. xxiii. 4.); among whom it is reasonable to think the scribes were included. For in 2 Chr. xxiv. 6. we read of Shemaiah the scribe, one of the Levites; and in 2 Chr. xxxiv. 13. we find it written, "Of the Levites that were scribes and officers."

The scribes and doctors of the law, in the scripture phrase, mean the same thing; and he that in Mat. xxii. 35. is called a *doctor of the law*, or a *lawyer* in Mark xii. 28. is named a *scribe*, or *one of the scribes*. And as the whole religion of the Jews at that time chiefly consisted in pharisaical traditions, and in the use that was made of them to explain the scripture; the greatest number of the doctors of the law, or of the scribes, were Pharisees; and we almost always find them joined together in scripture. Each of them valued themselves upon their knowledge of the law, upon their studying and teaching it (Mat. xxii. 52.): they had the key of knowledge, and sat in Moses's chair (Mat. xxiii. 2.). Epiphanius, and the author of the *Recognitions* imputed to St Clement, reckon the scribes among the sects of the Jews: but it is certain they made no sect by themselves; they were only distinguished by their study of the law.

SCRIBONIUS, Largus, an ancient physician in the reign of Augustus or Tiberius, was the author of several works; the best edition of which is that of John Rhodius.

Scribonius, Scrimzeor.

SCRIMZEOR or Scrimgeour, *Henry*, an eminent restorer of learning, was born at Dundee in the year 1506. He traced his descent from the ancient family of the Scrimzeours of Didupe or Dudhope, who obtained the office of hereditary standard-bearers to the kings of Scotland in 1057.

At the grammar-school of Dundee our author acquired the Greek and Latin languages to an uncommon degree of perfection, and that in a shorter time than many scholars before him. At the university of St Andrew's, his successful application to philosophy gained him great applause. The next scene of his studies was the university of Paris, and their more particular object the civil law. Two of the most famous civilians of that age, Eguinard Baron and Francis Duaren, (A) were then giving their lectures to crowded circles at Bourges. The fame of these professors occasioned his removal from Paris; and for a considerable time he prosecuted his studies under their direction.

At Bourges he had an opportunity of becoming acquainted with the celebrated James Amiot, Greek professor in that city, well known in the learned world by his translation of Plutarch's Lives, and distinguished afterwards by his advancement to great honours in the church, and finally to the rank of cardinal.

Through the recommendation of this eminent person, Mr Scrimzeor engaged in the education of two young gentlemen of the name of Bucherel, whom he instructed in the belles lettres, and other branches of literature, calculated to accomplish them for their station in life.

This connexion introduced him to Bernard Bornetel bishop of Rennes, a person famed in the political world for having served the state in many honourable embassies. Accepting an invitation from this prelate to accompany him to Italy, Mr Scrimzeor greatly enlarged the sphere of his literary acquaintance, by his conversation and connexion with most of the distinguished scholars of that country. The death of Francis Spira (B) happened during his visit to Padua; and as the character and conduct of this remarkable person at that time engaged

(A) "Francis Duaren was the first of the French civilians who purged the chair in the civil law schools from the barbarisms of the Glossaries, in order to introduce the pure sources of the ancient jurisprudence. As he did not desire to share that glory with any one, he looked with an envious eye on the reputation of his colleague Eguinard Baron, who also mixed good literature with the knowledge of the law. This jealousy put him upon composing a work, wherein he endeavoured to lessen the esteem that people had for his colleague. The maxim, '*Pascitur in vivis livor; post fata quiescit,*' was verified remarkably in him; for after the death of Baron, he showed himself most zealous to eternize his memory, and was at the expense of a monument to the honour of the deceased." From the Translation of Bayle's Dict. of 1710, p. 1143–4.

(B) Francis Spira was a lawyer of great reputation at Cittadella in the Venetian state, at the beginning of the 16th century. He had imbibed the principles of the Reformation, and was accused before John de la Casa, archbishop of Benevento, the pope's nuncio at Venice. He made some concessions, and asked pardon of the papal minister for his errors. But the nuncio insisted on a public recantation. Spira was exceedingly averse to this measure; but at the pressing instances of his wife and friends, who represented to him that he must lose his practice and ruin his affairs by persisting against it, he at last complied. Shortly after he fell into a deep melancholy, lost his health, and was removed to Padua for the advice of physicians and divines; but his disorders augmented. The recantation, which he said he had made from cowardice and interest, filled his mind with continual horror and remorse; insomuch that he sometimes imagined that he felt the torments of the damned. No means being found to restore either his health or his peace of mind, in 1548 he fell a victim to his miserable situation. See Collyer's Dict.—Spira.

engaged the attention of the world, Mr Scrimzeor is said to have collected memoirs of him in a publication entitled, "The Life of Francis Spira, by Henry of Scotland." This performance, however, does not appear in the catalogue of his works.

After he had stored his mind with the literature of foreign countries, and satisfied his curiosity as a traveller, it was his intention to have revisited Scotland. He might without vanity have entertained hopes, that the various knowledge which he had treasured up would have won him a partial reception among his countrymen. An ambition of being usefully distinguished among them as a man of letters, is justly supposed the principal motive of his desire to return: but the most sanguine projects of life are often strangely diverted by accident, or rather perhaps are invisibly turned by Providence from their purposed course. Mr Scrimzeor, on his journey homewards, was to pass through Geneva. His fame had long forerun his footsteps. The syndics and other magistrates, on his arrival, requested him to set up the profession of philosophy in that city; promising a compensation suitable to the exertion of his talents. He accepted the proposal, and established the philosophical chair.

After he had taught for some time at Geneva, a fire broke out in his neighbourhood, by which his house was consumed, and himself reduced to great distress. His late pupils, the Buchcrels, had not forgotten their obligations to him, and sent a considerable sum of money to his relief.

At this time flourished at Augsburg that famous mercantile family the Fuggers. Ulric Fugger was then its representative; a man possessed of prodigious wealth, passionately fond of literature, a great collector of books and manuscripts, and a munificent patron of learned men. Being informed, by means of his literary correspondence, of the misfortune which had befallen Mr Scrimzeor in the burning of his house, he immediately sent him a pressing invitation to accept an asylum beneath his roof till his affairs could be re-established. Mr Scrimzeor, gladly availing himself of such a hospitable kindness, lost no time in going to Germany.

Whilst residing at Augsburg with Mr Fugger, he was much employed in augmenting his patron's library, by vast collections purchased from every corner of Europe. Manuscripts of the Greek and Latin authors were then of inestimable value, and seem to have been more particularly the object of Mr Scrimzeor's researches.

He did not lead a life of yawning indolence amidst these treasures, and, like a mere unfeeling collector, leave them unenjoyed. As librarian, he was not contented to act the part of a black eunuch to his literary seraglio. He seems to have forgotten that he was not its Grand Sultan, and accordingly ranged at will among surrounding beauties. He composed many works of great learning and ingenuity, whilst he continued in a situation so peculiarly agreeable to the views and habits of a scholar.

When his manuscripts were ready for the press, he was desirous of returning to Geneva to print them. His patron, Fugger, recommended him for this purpose to the very learned Henry Stephens, one of his pensioners, and at that time one of the most celebrated printers in Europe.

Immediately on his arrival at Geneva, 1563, he was earnestly solicited by the magistrates to resume the chair of philosophy. Notwithstanding his compliance, and, in consequence of it, the dedication of much of his time to the study of physics, he, two years afterwards, instituted a course of lectures in the civil law, and had the honour of being its first founder and professor at Geneva.

As soon as he was settled again in this city, he hoped, amidst his other occupations, to prosecute the great object of his literary fame, the printing of his various works. But a suspicion which Henry Stephens entertained, that it was his intention to set up a rival press at Geneva, occasioned great dissensions between them. The result of the quarrel was, that the republic of letters, during Mr Scrimzeor's life, was deprived of his valuable productions. They fell most of them at his death into the hands of Isaac Casaubon, who has been accused of publishing considerable portions of them as his own.

Some account of Mr Scrimzeor's several performances will give an idea of his extensive erudition.

He wrote critical and explanatory notes upon Athenæus's *Deipnosophists*, or Table Conversations of Philosophers and Learned Men of Antiquity; having first collated several manuscripts of his author. This work Casaubon published at Leyden in 1600; but without distinguishing his own notes from those of Scrimzeor.

A Commentary and Emendations of the Geography of Strabo were among our author's literary remains. These were published in Casaubon's Parisian edition of Strabo, 1620. Henry Stephens, from an idea of justice due to Scrimzeor's literary fame, notwithstanding the violent animosity which had subsisted betwixt them, reproaches Casaubon for adopting our Scottish critic's lucubrations on Strabo without acknowledgment.—Dempster assures us, that Scrimzeor, in his manuscript letters, mentions his design of publishing this performance; whence, it is probable, that his work appeared to himself of considerable consequence, and had taken up much of his attention. Although Casaubon, in his ample notes exhibited at the foot of Strabo's text, makes no confession of having derived any thing from Scrimzeor, it must not be concealed, that in an epistle to Sir Peter Young, our critic's nephew, through whom the Commentary and Emendations of Strabo came into his hands, Casaubon acknowledges how very useful to him they might be made; for, speaking there of his intended edition of Strabo, he says, "It cannot be expressed how much assistance I may obtain from your notes of Scrimzeor."

Edward Herrison, a Scottish author, in his Commentary on Plutarch's Book concerning the Inconsistencies of the Stoics, informs us, that Scrimzeor collated different manuscripts of all the works of Plutarch. This undertaking appears sufficient to have occupied half the life of an ordinary critic. Every one knows how voluminous an author was the philosopher, the historian, and orator of Chæronea. Whether our learned critic had meant to publish an edition of Plutarch's works is not known; but such an intention seems highly probable from this laborious enterprise of collating them.

The 10 books of Diogenes Laertius on the Lives, Opinions, and Apophthegms of the Philosophers, were collated from various manuscripts by Scrimzeor. His

corrected text of this author, with notes full of erudition, came also into Casaubon's possession, and is supposed to have contributed much to the value of his edition of the Grecian Biographer, printed at Paris in 1593.

The works of Phornutus and Palæphatus were also among the collations of Mr Scrimzeor. To the latter of these authors he made such considerable additions, that the work became partly his own. These were two ancient authors who explain the fables of the heathen deities. The former wrote *De Natura Deorum seu de Fabularum Poeticarum Allegoriis Speculatio*, "On the Nature of the Gods, or the Allegorical Fictions of the Poets." The latter entitled his book Απιστα, *Sive de falsis Narrationibus*, "Things incredible, or concerning false Relations." These works were printed at Basil, 1570; whether in Greek or Latin is uncertain. They have been published since in both languages.

The manuscripts of them were for some time preserved in the library of Sir Peter Young, after that of his uncle Scrimzeor, which was brought into Scotland in 1573, had been added to it. What became of this valuable bequest at the death of the former, is uncertain.

Our learned philologer also left behind him in manuscript the orations of Demosthenes, Æschines, and Cicero, and the Ecclesiastical History of Eusebius, all carefully collated.

Among his literary remains was a collection of his Latin epistles. The men of letters in the 15th and 16th centuries seem to have kept their republic, as it is called, more united and compact than it is at present, by an epistolary intercourse in the Latin language, then the universal medium of literature and science. This general spirit of communication could not but contribute greatly to the advancement of learning, as well as to the pleasure, and, we may add, to the importance, of those who were engaged in its pursuit. The intercourse and union of enlightened men, able and disposed to promote the happiness of their fellow-creatures, cannot be too close. From such intellectual combination alone it is, that uniformity of religious, moral, and political principles, to its greatest attainable degree, can ever be expected; or, in other words, the greatest possible benefit derived from the cultivation of letters.

Of the many performances which had exercised his pen, it does not appear that any were immediately published by himself but his Translation of Justinian's Novels into Greek. This was printed at Paris in 1558, and again with Holoander's Latin version at Antwerp in 1575. This work has been highly extolled, both for the purity of its language and the accuracy of its execution, and is likely, according to some respectable opinions, to hold its estimation as long as any use or memory of the civil law shall exist.

A Latin translation of the *Basilica*, or Basilics, as they are called by our civilians, is the last we have to mention of this author's performances. This is a collection of Roman laws, which the eastern emperors Basil and Leo, who reigned in the fifth century, commanded to be translated into Greek, and which preserved their authority till the dissolution of the eastern empire. The Basilics comprehend the institutes, digests, code, and novels, and some of the edicts of Justinian and other emperors. Of 60 original books, 41 only remain. Mr Scrimzeor collated them with various manuscripts, probably before he commenced his translation.

From the foregoing recital of the learned labours of this profound scholar and critic, it will be concluded, that almost the whole of his life, although long, was spent in his library; and that the biographer, having now terminated the catalogue of his writings, is probably not distant from the conclusion of his life. Different years have been assigned for the time of his death; but it appears most likely, from a comparison of the different accounts of this event, that it happened very near the expiration of 1571, or at the beginning of the succeeding year, about the 66th year of his age. He died in the city of Geneva.

The characteristic features of Scrimzeor are few, but they are prominent and striking; and remote posterity may regard him with no inferior degree of respect. His industry and perseverance in the pursuit of knowledge and erudition, were equalled only by the exquisite judgment which he displayed in his critical annotations and commentaries on the errors and obscurities of ancient books and manuscripts.

His acquisitions in the Greek, Latin, and oriental languages, were reckoned much beyond those of most of the professed linguists of his time. The great Cujacius used to say, "That he never quitted Mr Scrimzeor's conversation without having learned something new." But that which gave peculiar grace to such superiority, was the amiable modesty which on all occasions was observed to accompany it. From the commendation given him by the illustrious civilian just mentioned, it will be concluded, that he did not brood, with a jealous reserve, over unlocked treasures of erudition; but that, conscious of possessing stores too ample to be soon exhausted, at the same time that he avoided an ostentatious profusion of them, he obliged and delighted his friends by a liberal communication. From the period at which he lived, considered with the nature and extent of his studies, and his abilities in prosecuting them, he may be deservedly ranked among those eminent characters who have most successfully contributed their exertions to the revival of letters in Europe.

SCRIPTURE.

1 Scriptures of the Old and New Testaments.

SCRIPTURE is a word derived from the Latin *scriptura*, and in its original sense is of the same import with *writing*, signifying, "any thing written." It is, however, commonly used to denote the writings of the Old and New Testaments; which are sometimes called *the Scriptures*, sometimes the *sacred* or *holy Scriptures*, and sometimes *canonical Scripture*. These books are called *the Scriptures* by way of eminence, as they are the

the most important of all writings; they are said to be *holy* or *sacred* on account of the sacred doctrines which they teach; and they are termed *canonical*, because when their number and authenticity were ascertained, their names were inserted in ecclesiastical *canons*, to distinguish them from other books; which, being of no authority, were kept as it were out of sight, and therefore styled *apocryphal* (A).

2 The authenticity of the Old Testament proved

The authenticity of the Old Testament may be proved from the character of the Jews, from internal evidence, and from testimony.

3 from the character of the Jews,

1. The character of the Jews affords a strong presumptive evidence that they have not forged or corrupted the Old Testament. Were a person brought before a court of justice on suspicion of forgery, and yet no presumptive or positive evidence of his guilt could be produced, it would be allowed by all that he ought to be acquitted. But farther, if the forgery alleged were inconsistent with the character of the accused; if it tended to expose to disgrace and reproach his general principles and conduct; or if we were assured that he considered forgery as an impious and abominable crime—it would require very strong testimony to establish his guilt. The case now mentioned corresponds exactly with the character and situation of the Jews. If a Jew had forged any book of the Old Testament, he must have been impelled to so bold and dangerous an enterprise by some very powerful motive. It could not be national pride, for there is scarcely one of these books which does not severely censure the national manners. It could not be the love of fame; for that passion would have taught him to flatter and extol the national character; and the punishment, if detected, would have been infamy and death. The love of wealth could not produce such a forgery; for no wealth was to be gained.

The Jews were selected from among the other nations of the world, and preserved a distinct people from the time of their emigration from Egypt to the Babylonish captivity, a period of 892 years. The principal purposes for which they were selected, was to preserve in a world running headlong into idolatry the knowledge and worship of the one true God, and to be the guardians of those sacred books that contained the prophecies which were to prove to future ages the divine mission of the Redeemer of mankind. To fit them for these important trusts, the spirit of their laws and the rites of their religion had the strongest tendency. Miracles were openly performed, to convince them that the God of Israel was the God of all the earth, and that he alone was to be worshipped. Public calamities always befel them when they became apostates to their God; yet they continued violently attached to idolatry till their captivity in Babylon made them for ever renounce it.

The Jews then had two opposite characters at different periods of their history: at first they were addicted to idolatry; afterwards they acquired a strong antipathy against it.

Had any books of the Old Testament been forged before the Babylonish captivity, when the Jews were devoted to idolatry, is it to be conceived that the impostor would have inveighed so strongly against this vice, and so often imputed to it the calamities of the state; since by such conduct he knew that he would render himself obnoxious to the people and to those idolatrous monarchs who persecuted the prophets?

But it may next be supposed, that "the sacred books were forged after the Babylonish captivity, when the principles of the Jews would lead them to inveigh against the worship of idols." But these principles would surely never lead them to expose the character of their ancestors, and to detail their follies and their crimes. Never had any people more national pride, or a higher veneration for their ancestors, than the Jews. Miracles and prophecies ceased soon after their return to Jerusalem; and from that period their respect for the sacred books approached to superstition. They preserved them with pious care, they read them often in their synagogues, and they considered every attempt to alter the text as an act of sacrilege. Is it possible that such men could be guilty of forgery, or could false writings be easily imposed on them?

4 from internal evidence, and

2. There is an internal evidence in the books of the Old Testament that proves them to have been written by different persons, and at distant periods; and enables us with precision to ascertain a time at or before which they must have been composed. It is an undeniable fact that Hebrew ceased to be the living language of the Jews during the Babylonish captivity, and that the Jewish productions after that period were in general written either in Chaldee or in Greek. The Jews of Palestine, some ages before the coming of our Saviour, were unable, without the assistance of a Chaldee paraphrase, to understand the Hebrew original. It necessarily follows, therefore, that every book which is written in pure Hebrew was composed either before or about the time of the Babylonish captivity. This being admitted, we may advance a step farther, and contend that the period which elapsed between the composition of the most ancient and the most modern books of the Old Testament was very considerable; or, in other words, that the most ancient books of the Old Testament were written many ages before the Babylonish captivity.

Marsh on the authenticity of the five books of Moses.

No language continues stationary; and the Hebrew, like other tongues, passed through the several stages of infancy, youth, manhood, and old age. If therefore, on comparison, the several parts of the Hebrew Bible are found to differ not only in regard to style, but also in regard to character and cultivation, we have strong internal marks that they were composed at different and distant periods. No classical scholar would believe, independent of the Grecian history, that the poems ascribed to Homer were written in the age of Demosthenes, the Orations of Demosthenes in the time of Origen, or the Commentaries of Origen in the time of Lascaris and Chrysoloras. For the very same reason, it is certain that the five books which are ascribed to Moses were not written in the time of David, the Psalms of David in the age of Isaiah, nor the

(A) From κατακρυπτω, *to put out of sight, or conceal.*

Scripture.

the prophecies of Isaiah in the time of Malachi; and since the Hebrew became a dead language about the time of the Babylonish captivity, the book of Malachi could not have been written much later. Before that period therefore were written the prophecies of Isaiah, still earlier the Psalms of David, and much earlier than these the books which are ascribed to Moses.

5 from testimony.

3. Let us now consider the evidence of testimony for the authenticity of the Old Testament. As the Jews were a more ancient people than the Greeks or Romans, and for many ages totally unconnected with them, it is not to be expected that we should derive much evidence from the historians of those nations: it is to the Jews alone we must look for information. But it has unfortunately happened that few of their works except the Scriptures themselves have been preserved to posterity. Josephus is the most ancient of the Jewish historians to whom we can appeal. He informs us, that the Old Testament was divided into three parts, the Law, the Prophets, and the Hagiographa or poetical books. No man, says he, hath ever dared to add or take away from them. He tells us also, that other books were written after the time of Artaxerxes; but as they were not compesed by prophets, they were not reckoned worthy of the same credit.

Since the promulgation of the Christian religion, it is impossible that any material alterations or corruptions could have taken place in the books of the Old Testament; for they have been in the hands both of Jews and Christians from that period. Had the Jews attempted to make any alterations, the Christians would have detected and exposed them; nor would the Jews have been less severe against the Christians if they had corrupted the sacred text. But the copies in the hands of Jews and Christians agree; and therefore we justly conclude, that the Old Testament is still pure and uncorrupted.

The division mentioned by our Saviour into the Law, the Prophets, and the Psalms, corresponds with that of Josephus. We have therefore sufficient evidence, it is hoped, to convince even a deist, that the Old Testament existed at that time. And if the deist will only allow, that Jesus Christ was a personage of a virtuous and irreproachable character, he will acknowledge that we draw a fair conclusion when we assert that the Scriptures were not corrupted in his time: for when he accused the Pharisees of making the law of no effect by their traditions, and when he injoined his hearers to search the Scriptures, he could not have failed to mention the corruptions or forgeries of Scripture, if any in that age had existed. But we are assured, by very respectable authority, that the canon of the Old Testament was fixed some centuries before the birth of Jesus Christ. Jesus the son of Sirach, the author of Ecclesiasticus, makes evident references to the prophecies of Isaiah, * Jeremiah, † and Ezekiel, ‡ and mentions these prophets by name. He speaks also of the twelve minor prophets. § It appears also from the prologue, that the law and the prophets, and other ancient books, existed at the same period. The book of Ecclesiasticus, according to the calculations of the best chronologers, was written in Syriac about A. M. 3772, that is, 232 years before the Christian era, and was translated into Greek in the next century by the grandson of the author. The prologue was added by the translator: but this circumstance does not diminish the evidence for the antiquity of Scripture; for he informs us, that the law and the prophets, and the other books of their fathers, were studied by his grandfather: a sufficient proof that they existed in his time. As no authentic books of a more ancient date, except the sacred writings themselves, have reached our time, we can ascend no higher in search of testimony.

* Ecclesiasticus, xlviii. 22.
† xlix. 6.
‡ xlix. 8.
§ xlix. 10.

There is, however, one remarkable historical fact, which proves the existence of the law of Moses at the dissolution of the kingdom of Israel, when the ten tribes were carried captive to Assyria by Shalmaneser, and dispersed among the provinces of that extensive empire; that is, about 741 years before Christ. It was about that time the Samaritans were transported from Assyria to repeople the country which the ten captive tribes of Israel had formerly inhabited. The posterity of the Samaritans still inhabit the land of their fathers, and have preserved copies of the Pentateuch, two or three of which were brought to this country in the seventeenth century. The Samaritan Pentateuch is written in old Hebrew characters (see PHILOLOGY, N° 28.), and therefore must have existed before the time of Ezra. But so violent were the animosities which subsisted between the Jews and Samaritans, that in no period of their history would the one nation have received any books from the other. They must therefore have received them at their first settlement in Samaria from the captive priest whom the Assyrian monarch sent to teach them how they should fear the Lord (2 Kings xvii.)

6 The canon of the Old Testament settled.

The canon of the Old Testament, as both Jewish and Christian writers agree, was completed by Ezra and some of his immediate successors (see BIBLE). In our copies the sacred books are divided into 39. The Jews reckoned only 22, corresponding to the number of letters in the Hebrew alphabet. They united the books of Judges and Ruth; they joined the two books of Samuel; the books of Kings and Chronicles were reckoned one; Ezra and Nehemiah one; the Prophecies and Lamentations of Jeremiah were taken under the same head; and the 12 minor prophets were considered as one book—so that the whole number of books in the Jewish canon amounted to 22.

7 The Pentateuch written by Moses,

The Pentateuch consists of the five books, Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. Several observations have been already made respecting the authenticity of these, under the article PENTATEUCH; but several additional remarks have occurred, which may not improperly be given in this place. For many of these we acknowledge ourselves indebted to a sermon published by the reverend Mr Marsh, whose research, learning, and critical accuracy, will be acknowledged by every reader of discernment.

One of the strongest arguments that have occurred to us in support of the authenticity of the Pentateuch, and the inspiration of the writer, has already been given under the article RELIGION, N° 14, &c.; which see. But we shall in this place present two arguments of a different kind, which would be sufficient to prove at least the former of these conclusions. We argue from the language and contents of the Mosaic writings, and from the testimony of the other books of Scripture.

From

Scripture.

8 proved by internal evidence,

From the contents and language of the Pentateuch there arises a very strong presumption that Moses was its author. The very mode of writing in the four last books discovers an author contemporary with the events which he relates; every description, both religious and political, is a proof that the writer was present at each respective scene; that the legislative and historical parts are so interwoven with each other, that neither of them could have been written by a man who lived in a later age. The account which is given in the book of Exodus of the conduct of Pharaoh towards the children of Israel, is such as might have been expected from a writer who was not only acquainted with the country at large, but had frequent access to the court of its sovereign: and the minute geographical description of the passage through Arabia is such, as could have been given only by a man like Moses, who had spent 40 years in the land of Midian. The language itself is a proof of its high antiquity, which appears partly from the great simplicity of the style, and partly from the use of archaisms or antiquated expressions, which in the days even of David and Solomon were obsolete. (B) But the strongest argument that can be produced to show that the Pentateuch was written by a man born and educated in Egypt, is the use of Egyptian words; words which never were, and never could have been, used by a native of Palestine: and it is a remarkable circumstance, that the very same thing which Moses had expressed by a word that is pure Egyptian, Isaiah, as might be expected from his birth and education, has expressed by a word that is purely Hebrew. (C)

Marsh.

9 and by testimony.

That Moses was the author of the Pentateuch is proved also from the evidence of testimony. We do not here quote the authority of Diodorus Siculus, of Longinus, or Strabo, because their information must have been derived from the Jews. We shall seek no authority but that of the succeeding sacred books themselves, which bear internal evidence that they were written in different ages, and therefore could not be forged, unless we were to adopt the absurd opinion that there was a succession of impostors among the Jews who united in the same fraud. The Jews were certainly best qualified to judge of the authenticity of their own books. They could judge of the truth of the facts recorded, and they could have no interest in adopting a forgery. Indeed, to suppose a whole nation combined in committing a forgery, and that this combination should continue for many hundred years, would be the most chimerical supposition that ever entered into the mind of man. Yet we must make this supposition, if we reject the historical facts of the Old Testament. No one will deny that the Pentateuch existed in the time of Christ and his apostles; for they not only mention it, but quote it. "This we admit," reply the advocates for the hypothesis which we are now combating; "but you cannot therefore conclude that Moses was the author; for there is reason to believe it was composed by Ezra." But unfortunately for men of this opinion, both Ezra and Nehemiah ascribe the book of the law to Moses. * 2. The Pentateuch was in the possession of the Samaritans before the time of Ezra. 3. It existed in the reign of Amaziah king of Judah, A. C. 839 years. †† 4. It was in public use in the reign of Jehosaphat, A. C. 912; for that virtuous prince appointed Levites and priests who taught in Judah, and had the book of the law of the Lord with them, and went about throughout all the cities of Judah and taught the people. ‡ 5. It is referred to by David in his dying admonitions to Solomon. § The same royal bard makes many allusions to it in the book of Psalms, and sometimes quotes it. * There remains therefore only one resource to those who contend that Moses was not the author, viz. that it was written in the period which elapsed between the age of Joshua and that of David. But the whole history of the Jews from their settlement in Canaan to the building of the temple presupposes that the book of the law was written by Moses. 6. We have satisfactory evidence that it existed in the time of Joshua. One passage may be quoted where this fact is stated. The Divine Being makes use of these words to Joshua: "Only be thou strong, and very courageous, that thou mayest observe to do all according to *the law* which Moses my servant commanded thee; turn not from it to the right hand or to the left, that thou mayest prosper whithersoever thou goest. *This book of the law* shall not depart out of thy mouth; but thou shalt meditate therein day and night, that thou mayest observe to do according to all that is written therein." †

* Ezra iii. 2. viii. 14. Nehem. xiii. 1.

†† 2 Chron. xxv. 4. 2 Kings xiv. 6.

‡ 2 Chron. xvii. 8, 9.

§ 1 Kings ii. 3.

* Comp. Psalm ciii. 7, 8. with Exod. xxxiv. 6. in the original, where the words are the very same.

† Joshua i. 7, 8. viii. 31. xxiii. 6.

10 General objections answered.

To the foregoing demonstration objections may be stated. "We will admit the force of your arguments, and grant that Moses actually wrote a work called the book of the law: but how can we be certain that it was the very work which is now current under his name? And unless you can show this to be at least probable, your whole evidence is of no value." To illustrate the force or weakness of this objection, let us apply it to some ancient Greek author, and see whether a classical scholar would allow it to have weight. "It is true that the Greek writers speak of Homer as an ancient and celebrated poet; it is true also, that they have quoted from the works which they ascribe to him various passages that we find at present in the Iliad and Odyssey: yet still there is a possibility that the poems which were written by Homer, and those which we call the *Iliad* and *Odyssey*, were totally distinct productions." Now, an advocate for Greek literature would reply to this objection, not with a serious answer, but with a smile of contempt; and he would think it beneath his dignity to silence an opponent who appeared to be deaf to

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(B) For instance, הוא *ille*, and נער *puer*, which are used in both genders by no other writer than Moses. See Gen. xxiv. 14. 16. 28. 55. 57. xxxviii. 21. 25.

(C) For instance, אחר (perhaps written originally אהי, and the י lengthened into ו by mistake), written by the Seventy αχι or αχει, Gen. xli. 2. and תכח, written by the Seventy θιβη or θιβις. See *La Croze Lexicon Ægyptiacum*, art. AXI and ΘHBI.

The same thing which Moses expresses by אהו, Gen. xli. 2. Isaiah xix. 7. expresses by גמה, for the Seventy have translated both of these words by αχι.

Scripture.

to the clearest conviction. But still more may be said in defence of Moses than in defence of Homer; for the writings of the latter were not deposited in any temple or sacred archive, in order to secure them from the devastations of time: whereas the copy of the book of the law, as written by Moses, was intrusted to the priests and the elders, preserved in the ark of the covenant, and read to the people every seventh year. (D) Sufficient care therefore was taken not only for the preservation of the original record, but that no spurious production should be substituted in its stead. And that no spurious production ever has been substituted in the stead of the original composition of Moses. appears from the evidence book of the Greek and the Samaritan Pentateuch. For as these agree with the Hebrew, except in some trifling variations (E), to which every work is exposed by length of time, it is absolutely certain that the five books which we now ascribe to Moses are one and the same work with that which was translated into Greek in the time of the Ptolemies, and, what is of still greater importance, with that which existed in the time of Solomon. And as the Jews could have had no motive whatever, during that period which elapsed between the age of Joshua and that of Solomon, for substituting a spurious production instead of the original as written by Moses, and, even had they been inclined to attempt the imposture, would have been prevented by the care which had been taken by their lawgiver, we must conclude that our present Pentateuch is the very identical work that was delivered by Moses.

11 Particular objections obviated.

The positive evidence being now produced, we shall endeavour to answer some particular objections that have been urged. But as most of these occur in the book of Genesis, we shall reserve them for separate examination, and shall here only consider the objections peculiar to the last four books. They may be comprised under one head, viz. expressions and passages in these books which could not have been written by Moses. 1. The account of the death of Moses, in the last chapter of Deuteronomy, we allow must have been added by some succeeding writer; but this can never prove that the book of Deuteronomy is spurious. What is more common among ourselves than to see an account of the life and death of an author subjoined to his works, without informing us by whom the narrative was written? 2. It has been objected, that Moses always speaks of himself in the third person. This is the objection of foolish ignorance, and therefore scarcely deserves an answer. We suspect that such persons have never read the classics, particularly Cæsar's Commentaries, where the author uniformly speaks of himself in the third person, as every writer of correct taste will do who reflects on the absurdity of employing the pronoun of the first person in a work intended to be read long after his death. (See GRAMMAR, N° 33.) 3. As to the objection, that in some places the text is defective, as in Exodus xv. 8. it is not directed against the author, but against some transcriber; for what is wanting in the Hebrew is inserted in the Samaritan. 4. The only other objection that deserves notice is made from two passages. It is said in one place that the bed of Og is at Ramah *to this day*; and in another (Deut iii. 14.), "Jair the son of Manasseh took all the country of Argob unto the coasts of Geshuri and Maacathi, and called them after his own name, Bashan-havoth-jair, *unto this day*." The last clause in both these passages could not have been written by Moses, but it was probably placed in the margin by some transcriber by way of explanation, and was afterwards by mistake inserted in the text. Whoever doubts the truth of this assertion, may have recourse to the manuscripts of the Greek Testament, and he will find that the spurious additions in the texts of some manuscripts are actually written in the margin of others. (F)

That the Pentateuch, therefore, at least the last four books of it, was written by Moses, we have very satisfactory evidence; which, indeed, at the distance of 3000 years is wonderful, and which cannot be affirmed of any profane history written at a much later period.

12 Authenticity of the book of Genesis.

The book of Genesis was evidently not written by a person who was contemporary with the facts which he records; for it contains the history of 2369 years, a period comprehending almost twice as many years as all the rest of the historical books of the Old Testament put together. Moses has been acknowledged the author of this book by all the ancient Jews and Christians; but it has been matter of dispute from what source he derived his

(D) "And Moses wrote this law, and delivered it unto the priests the sons of Levi, which bare the ark of the covenant of the Lord, and unto all the elders of Israel. And Moses commanded them, saying, At the end of every seven years, in the solemnity of the year of release, in the feast of tabernacles, when all Israel is come to appear before the Lord thy God, in the place which he shall choose, thou shalt read this law before all Israel in their hearing. And it came to pass, when Moses had made an end of writing the words of this law in a book until they were finished, that Moses commanded the Levites, which bare the ark of the covenant of the Lord, saying, Take this book of the law, and put it in the side of the ark of the covenant of the Lord your God." Deut. xxxi. 9—11. 24—26. There is a passage to the same purpose in Josephus: Δηλωται δια των ανακειμενων εν τω ιερω γραμματων, *Josephi Antiquitat.* lib. v. c. 1. § 17. ed. Hudson.

(E) See the collation of the Hebrew and Samaritan Pentateuch, in the 6th vol. of the *London Polyglot*, p. 19. of the *Animadversiones Samariticæ*.

(F) To mention only two examples. 1. The common reading, 1 Cor. xvi. 2. is μιαν σαββατων: but the Codex Petavian. 3. has την κυριακην in the margin; and in one of the manuscripts which Beza used, this marginal addition has been obtruded in the text: See his note on this passage. 2. Another instance is, 1 John ii. 27. where the genuine reading is χρισμα; but Wetstein quotes two manuscripts, in which πνευμα is written in the margin; and this marginal reading has found its way not only into the Codex Covelli 2. but into the Coptic and Ethiopic versions.

his materials; some affirming that all the facts were revealed by inspiration, and others maintaining that he procured them from tradition.

Some who have looked on themselves as profound philosophers, have rejected many parts of the book of Genesis as fabulous and absurd: but it cannot be the wisdom of philosophy, but the vanity of ignorance, that could lead to such an opinion. In fact, the book of Genesis affords a key to many difficulties in philosophy which cannot otherwise be explained. It has been supposed that the diversities among mankind prove that they are not descended from one pair; but it has been fully shown that all these diversities may be accounted for from natural causes. It has been reckoned a great difficulty to explain how fossil shells were introduced into the bowels of the earth; but the deluge explains this fact better than all the romantic theories of philosophers. It is impossible to account for the origin of such a variety of languages in a more satisfactory manner than is done in the account of the confusion of tongues which took place at Babel. It would be no easy matter to show why the sea of Sodom is so different from every other sea on the globe which has yet been explored, if we had not possessed the scriptural account of the miraculous destruction of Sodom and Gomorrah. It is saturated with bitumen and salt, and contains no fishes. These are very singular facts, which have been fully established by late travellers. The book of Genesis, too, has been treated with contempt, because it makes the world less ancient than is necessary to support the theories of modern philosophers, and because it is difficult to reconcile the chronologies of several nations with the opinion that the world is not above 6000 or 7000 years old. The Chaldeans, in the time of Cicero, reckoned up 470,000 years. The Egyptians pretend that they have records extending 50,000 years back; and the Hindoos go beyond all bounds of probability, carrying back their chronology, according to Halhed, more than 7,000,000 of years.

13 Mosaic chronology vindicated.

An attempt has been made by the unfortunate M. Bailly, once mayor of Paris, to reconcile these magnified calculations with the chronology of the Septuagint, which is justly preferred to the Hebrew. (See SEPTUAGINT). He informs us, that the Hindoos, as well as the Chaldeans and Egyptians, had years of arbitrary determination. They had months of 15 days, and years of 60 days, or two months. A month is a night and day of the patriarchs; a year is a night and day of the gods; four thousand years of the gods, are as many hundred years of men. By attention to such modes of computation, the age of the world will be found very nearly the same in the writings of Moses, and in the calculations and traditions of the Bramins. With these also we have a remarkable coincidence with the Persian chronology. Bailly has established these remarkable epochas from the Creation to the Deluge.

The Septuagint gives	-	2256 years.
The Chaldeans	- -	2222
The Egyptians	- -	2340
The Persians	- -	2000
The Hindoos	- -	2000
The Chinese	- -	2300

The same author has also shown the singular coincidence of the age of the world as given by four distinct and distantly situated people.

The ancient Egyptians	-	5544 years.
The Hindoos	- -	5502
The Persians	- -	5501
The Jews, according to Josephus,		5555

Having made these few remarks, to show that the facts recorded in Genesis are not inconsistent with truth, we shall now, by a few observations, establish the evidence, from testimony, that Moses was the author, and answer the objections that seem strongest.

There arises a great probability, from the book of Genesis itself, that the author lived near the time of Joseph; for as we advance towards the end of that book, the facts gradually become more minute. The materials of the antediluvian history are very scanty. The account of Abraham is more complete; but the history of Jacob and his family is still more fully detailed. This is indeed the case with every history. In the early part, the relation is very short and general; but when the historian approaches his own time, his materials accumulate. It is certain, too, that the book of Genesis must have been written before the rest of the Pentateuch; for the allusions in the last four books to the history of Abraham, of Isaac, and Jacob, are very frequent. The simplicity of the style shows it to be one of the most ancient of the sacred books; and perhaps its similarity to the style of Moses would determine a critic to ascribe it to him. It will be allowed that no man was better qualified than Moses to compose the history of his ancestors. He was learned in all the wisdom of the Egyptians, the most enlightened nation of his time, and he had the best opportunities of obtaining accurate information. The short account of the antediluvian world could easily be remembered by Abraham, who might obtain it from Shem, who was his contemporary. To Shem it might be conveyed by Methuselah, who was 340 years old when Adam died. From Abraham to Moses, the interval was less than 400 years. The splendid promises made to that partriarch would certainly be carefully communicated to each generation, with the concomitant facts: and thus the history might be conveyed to Moses by the most distinguished persons. The accounts respecting Jacob and his son Joseph might be given to Moses by his grandfather Kohath, who must have been born long before the descent into Egypt; and Kohath might have heard all the facts respecting Abraham and Isaac from Jacob himself. Thus we can easily point out how Moses might derive the materials of the book of Genesis, and especially of the last 38 chapters, from the most authentic source.

14 Objections to the authenticity of the book of Genesis obviated.

It will now be necessary to consider very shortly the objections which have been supposed to prove that Genesis could not have been written by Moses. 1. It is objected, that the author of the first chapters of Genesis must have lived in Mesopotamia, as he discovers a knowledge of the rivers that watered Paradise, of the cities Babylon, Erech, Resen, and Calneh; of the gold of Pison; of the bdellium and onyx stone. But if he could not derive this knowledge from the wisdom of the Egyptians, which is far from being improbable, he might surely obtain it by tradition from Abraham, who was born and brought up beyond the Euphrates. 2. In Genesis

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Genesis xiv. 14. it is said, Abraham pursued the four confederate kings to Dan, yet that name was not given till after the conquest of Palestine. * We answer, this might be inserted by a transcriber. But such a supposition is not necessary; for though we are told in the book of Judges that a city originally called Laish received then the name of Dan, this does not prove that Laish was the same city with the Dan which is mentioned in Genesis. The same answer may be given to the objection which is brought from Genesis xxxv. 21. where the tower of Edar is mentioned, which the objectors say was the name of a tower over one of the gates of Jerusalem. But the tower of Edar signifies the tower of the flocks, which in the pastoral country of Canaan might be a very common name. 3. The most formidable objection is derived from these two passages, Gen. xii. 6. "And the Canaanite was then in the land." Gen. xxxvi. 31. "These are the kings that reigned over the land of Edom, *before there reigned any king over the children of Israel.*" Now, it is certain that neither of these passages could be written by Moses. We allow they were added by a later writer; but this circumstance cannot invalidate the evidence which has been already produced. It does not prove that Moses was not the author of the book of Genesis, but only that the book of Genesis has received two alterations since his death.

* Judges chap. xviii. 22.

According to Rivet, our Saviour and his Apostles have cited 27 passages verbatim from the book of Genesis, and have made 38 allusions to the sense.

15 The book of Exodus.

The book of Exodus contains the history of the Israelites for about 145 years. It gives an account of the slavery of the Israelites in Egypt; of the miracles by which they were delivered; of their passage through the Red sea, and journey through the wilderness; of the solemn promulgation of the Decalogue on Mount Sinai, and of the building and furniture of the Tabernacle. This book is cited by David, by Daniel, and other sacred writers. Twenty-five passages are quoted by our Saviour and his apostles in express words, and they make 19 allusions to the sense.

16 Leviticus.

The book of Leviticus contains the history of the Israelites for one month. It consists chiefly of laws. Indeed, properly speaking, it is the code of the Jewish ceremonial and political laws. It describes the consecration of Aaron and his sons, the daring impiety and exemplary punishment of Nadab and Abihu. It reveals also some predictions respecting the punishment of the Israelites in case of apostasy; and contains an assurance that every sixth ear should produce abundance to support them during the seventh or sabbatical year. This book is quoted as the production of Moses in several books of scripture. *

* 2 Chron. xxx. 16. Jerem. vii. 22, 23. ix. 16. Ezek. xx. 11. Matth. viii. 4. Rom. x. 5. xiii. 9. 2 Cor. vi. 16. Gal. iii. 12. 1 Pet. i. 16.

17 Numbers.

The book of Numbers comprehends the history of the Israelites for a period of about 38 years, reckoning from the first day of the second month after their departure from Egypt. It contains an account of two numberings of the people; the first in the beginning of the second year of their emigration, the second in the plains of Moab towards the conclusion of their journey in the wilderness. † It describes the ceremonies employed at the consecration of the tabernacle, gives an exact journal of the marches and encampments of the Israelites, relates the appointment of the 70 elders, the miraculous cure performed by the brazen serpent, and the misconduct of Moses when he was commanded to bring water out of the rock. There is also added an account of the death of Aaron, of the conquest of Sihon and Og, and the story of Balaam, with his celebrated prophecy concerning the Messiah. §

† Numb. i. xxvi.

§ Numb. xxiv. 17. 19.

The book of Numbers is quoted as the work of Moses in several places of Scripture. *

* Joshua iv. 22. 2 Chron. xxix. 11. xxxi. 3. Ezek. xx. 13. xliv. 27. Matth. xii. 5. John vi. 31. ix. 36.

18 Deuteronomy.

The book of Deuteronomy comprehends a period of nearly two months. It consists of an interesting address to the Israelites, in which Moses recals to their remembrance the many instances of divine favour which they had experienced, and reproaches them for their ingratitude. He lays before them, in a compendious form, the laws which he had formerly delivered, and makes some explanatory additions. This was the more necessary, because the Israelites, to whom they had been originally promulgated, and who had seen the miracles in Egypt, at the Red sea, and Mount Sinai, had died in the wilderness. The divine origin of these laws, and the miracles by which they were sanctioned, must already have been well known to them; yet a solemn recapitulation of these by the man who had miraculously fed the present generation from their infancy, who by the lifting up of his hands had procured them victory in the day of battle, and who was going to leave the world to give an account of his conduct to the God of Israel, could not but make a deep and lasting impression on the minds of all who heard him. He inculcates these laws by the most powerful motives. He presents before them the most animating rewards, and denounces the severest punishments against the rebellious. The prophecies of Moses towards the end of this book, concerning the fate of the Jews, their dispersion and calamities, the conquest of Jerusalem by the Romans, the miseries of the besieged, and the present state of the Jewish nation, cannot be read without astonishment. They are perspicuous and minute, and have been literally accomplished.

* Matth. iv. 4. John i. 45. Acts iii. 22. Gal. iii. 13.

This book is quoted as the production of Moses by Christ and his apostles. *

19 The historic books

4. The historical books are 12 in number, Joshua, Judges, Ruth, Samuel I. and II. Kings I. and II. Chronicles, Ezra, Nehemiah, Esther. These, if considered distinctly from the Pentateuch, and the writings more properly styled prophetical, contain a compendium of the Jewish history from the death of Moses, A. M. 2552, to the reformation established by Nehemiah after the return from the capitivity, A. M. 3595, comprehending a period of 1043 years.

To enable us to discover the authors of these books, we have no guide to conduct us but conjecture, internal evidence, or the authority of the modern Jews. From the frequent references in Scripture, and from the testimony of Josephus, it appears that the Jews were in possession of many historical records which might have thrown much light on this subject if they had still been preserved. But during the calamities which befel that infatuated nation in their wars with the Romans, and the dispersion which followed, these writings have perished. But though we can produce no testimony more ancient than the age of our Saviour to authenticate the historical books, yet there are some facts respecting the mode of their preservation which entitle them to credit. The very circumstance itself, that the Jews have preserved them in the sacred volume to this day, while their other ancient books have been lost, is a proof that they considered them as the genuine records

20 deserving of the fullest credit.

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cords of their nation. Josephus, † whose authority is of great importance, informs us, that it was the peculiar province of the prophets and priests to commit to writing the annals of the nation, and transmit them to posterity. That these might be faithfully preserved, the sacerdotal function was made hereditary, and the greatest care was taken to prevent intermarriages either with foreigners or with the other tribes. No man could officiate as a priest who could not prove his descent in a right line by unquestionable evidence. ‡ Registers were kept in Jerusalem, which at the end of every war were regularly revised by the surviving priests; and new ones were composed. As a proof that this has been faithfully performed, Josephus adds, that the names of all the Jewish priests, in an uninterrupted succession from father to son, had been registered for 2000 years; that is, from the time of Aaron to the age of Josephus.

† *Contra Apion*, lib. i.

‡ Ezra ii. 61, 62.

The national records were not allowed to be written by any man who might think himself fit for the office; and if a priest falsified them, he was excluded from the altar and deposed from his office. Thus we are assured that the Jewish records were committed to the charge of the priests; and since they may be considered as the same family from Aaron to the Babylonish captivity and downwards, the same credit is due to them that would be due to family records, which by antiquarians are esteemed the most authentic sources of information.

21 Authenticity of the Hebrew records.

Of the 22 books which Josephus reckoned himself bound to believe, the historical books from the death of Moses to the reign of Artaxerxes, he informs us, were written by contemporary prophets. It appears, then, that the prophets were the composers, and the priests the hereditary keepers of the national records. Thus, the best provision possible was made that they should be written accurately, and preserved uncorrupted. The principal office of these prophets was to instruct the people in their duty to God, and occasionally to communicate the predictions of future events. For this purpose they were educated in the schools of the prophets, or in academies where sacred learning was taught. The prophets were therefore the learned men of their time, and consequently were best qualified for the office of historians. It may be objected, that the prophets, in concert with the priests, might have forged any writings they pleased. But before we suspect that they have done so in the historical books of the Old Testament, we must find out some motive which could induce them to commit so daring a crime. But this is impossible. No encomiums are made either on the prophets or the priests; no adulation to the reigning monarch appears, nor is the favour of the populace courted. The faults of all ranks are delineated without reserve. Indeed there is no history extant that has more the appearance of impartiality. We are presented with a simple detail of facts, and are left to discover the motives and intentions of the several characters; and when a character is drawn, it is done in a few words, without exaggerating the vices or amplifying the virtues.

It is of no great consequence, therefore, whether we can ascertain the authors of the different books or not. From Josephus we know that they existed in his time; and from his account of the manner in which they were preserved, we are assured they were not in danger of being corrupted. They existed also when the Septuagint translation was made. Frequent references are made to them in the writings of the later prophets; sometimes the same facts are related in detail. In short, there is such a coincidence between the historical books and the writings of those prophets who were contemporary, that it is impossible to suppose the latter true without receiving the former.

Indeed, to suppose that the Jews could have received and preserved with such care for so many hundred years false records, which it must have been in the power of every person to disprove, and which at the same time do so little credit to the character of their nation, is to suppose one of the greatest absurdities in the world; it is to suppose that a whole nation could act contrary to all those principles which have always predominated in the human mind, and which must always predominate till human nature undergo a total revolution.

22 Joshua.

The book which immediately follows the Pentateuch has been generally ascribed to Joshua the successor of Moses. It contains, however, some things which must have been inserted after the death of Joshua. It is necessary to remark, that there is some accidental derangement in the order of the chapters of this book, which was probably occasioned by the ancient mode of fixing together a number of rolls. If chronologically placed, they should be read thus, 1st chapter to the 10th verse, then the 2d chapter; then from the 10th verse to the end of the 1st chapter; afterwards should follow the vi. vii. viii. ix. x. and xi. chapters; then the xxii.; and lastly the xii. and xiii. chapters to the 24th verse of the latter.

The facts mentioned in this book are referred to by many of the sacred writers. § In the first book of Kings xvi. 34. the words of Joshua are said to be the words of God. See JOSHUA.

§ 1 Chron. ii. 7.—xii. 15; Psalm cxiv. 8.; Isa. xxviii. 21.; Acts vii. 45.; Heb. xi. 31.—xiii. 5. James ii. 25. 28.; Ecclus. xlvi. 4.; 1 Mac. ii. 5, 6.

By whom the book of Judges was written is uncertain; but as it contains the history of the Jewish republic for 317 years, the materials must have been furnished by different persons. The book, however, seems to be the composition of one individual (G), who lived after the regal government was established, * but before the accession of David; for it is said in the 21st verse of the 1st chapter, that the Jebusites were still in Jerusalem; who, we know, were dispossessed of that city early in the reign of David. † We have reason, therefore, to ascribe this book to Samuel.

23 Judges.

* Judg. xix. 1.; xxi. 25.

† 2 Sam. v. 6, 8.

The history of this book may be divided into two parts; the first contains an account of the judges from Othniel to Samson, ending at the 16th chapter. The second part relates several remarkable transactions which occurred soon after the death of Joshua; but are added to the end of the book, that they might not interrupt the course of the history.

24 Ruth.

The book of Ruth is a kind of supplement to the book of Judges, and an introduction to the history of David,

(G) In support of this opinion, it may be observed that the author, chap. ii. 10, &c. lays before us the contents of the book.

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David, as it is related in the books of Samuel. Since the genealogy which it contains descends to David, it must have been written after the birth of that prince, but not at any considerable time after it; for the history of Boaz and Ruth, the great-grandfather and great-grandmother of David, could not be remembered above two or three generations. As the elder brothers of David and their sons are omitted, and none of his own children are mentioned in the genealogy, it is evident that the book was composed in honour of the Hebrew monarch, after he was anointed king by Samuel, and before any of his children were born; and consequently in the reign of Saul. The Jews ascribe it to Samuel; and indeed there is no person of that age to whom it may be attributed with more propriety. We are informed (1 Sam. x. 25.) that Samuel was a writer, and are assured that no person in the reign of Saul was so well acquainted with the splendid prospects of David as the prophet Samuel.

25 The two books of Samuel.

The Greeks denominate the books of Samuel, which follow next in order, *The Books of Kingdoms;* and the Latins, *The Books of Kings I. and II.* Anciently there were but two books of Kings; the first was the two books of Samuel, and the second was what we now call the two books of Kings. According to the present division, these two books are four, viz. the first and second books of *Samuel*, and the first and second books of *Kings*.

Concerning the author of the two books of Samuel there are different opinions. Some think that Samuel wrote only twenty or twenty-four chapters of the first book, and that the history was continued by Nathan and Gad. This opinion they ground on the following passage in *Chronicles*, * "Now the acts of David the king, first and last, behold they are written in the book of Samuel the *seer*, and in the book of Nathan the *prophet*, and Gad the *seer*." Others think they were compiled by Ezra from ancient records; but it is evident that the books of Samuel were written before the books of Kings and Chronicles; for on comparison it will be found, that in the last mentioned books many circumstances are taken from the former. The first book carries down the history of the Israelites from the birth of Samuel to the fatal battle of Gilboa, comprehending a period of about 80 years. The second relates the history of David from his succession to the throne of Israel till within a year or two of his death, containing 40 years. There are two beautiful passages in these books which every man of sentiment and taste must feel and admire, the lamentation or elegy on Saul and Jonathan, and the parable of Nathan. The impartiality of the historian is fully attested by the candour and freedom with which the actions of Saul and David are related. There are some remarks interspersed which were probably added by Ezra.

* 1 Chron. xxix. 29.

26 Of Kings.

When the two books of Kings were written, or by whom they were compiled, is uncertain. Some have supposed that *David*, *Solomon*, and *Hezekiah*, wrote the history of their own times. Others have been of opinion that the prophets, viz. *Isaiah*, *Jeremiah*, *Gad*, and *Nathan*, each of them wrote the history of the reign in which he lived. But it is generally believed that *Ezra* wrote those two books, and published them in the form in which we have them at present. There can be no doubt that the prophets drew up the lives of the kings who reigned in their times: for the names and writings of those prophets are frequently mentioned, and cited. Still, however, it is evident that the two books of Kings are but an abridgement of a larger work, the substance of which is contained in the books before us. In support of the opinion that Ezra is the author of these books, it is said, That in the time of the penman, the ten tribes were captive in Assyria, whither they had been carried as a punishment for their sins: That in the second of these books the author makes some reflections on the calamities of Israel and Judah, which demonstrate that he lived after that event. But to this it is objected, That the author of these books expresses himself throughout as a cotemporary, and as one would have done who had been an eye and ear-witness of what he related. To this objection it is answered, That Ezra compiled these books from the prophetic writings which he had in his possession; that he copied them exactly, narrating the facts in order as they happened, and interspersed in his history some reflections and remarks arising from the subjects which he handled.

The first book comprises a period of 126 years, from the death of David to that of Jehoshaphat. The second book records the transactions of many kings of Judah and Israel for about 300 years, from the death of Jehoshaphat to the destruction of Jerusalem and the temple, A. M. 3416; A. C. 588.

27 Of Chronicles.

The Hebrews style the two books of Chronicles *Deberi Imim*,* i. e. *Words of days*, journals or diaries, in allusion to those ancient journals which appear to have been kept among the Jews. The Greeks call them *Paralipomena*,† which signifies *things omitted;* as if these two books were a kind of supplement to inform us what had been omitted or too much abridged in the books of *Kings*. The two books of Chronicles contain indeed several particulars which are not to be met with in the other books of scripture: but it is not therefore to be supposed that they are the records of the kings of Judah and Israel, so often referred to in the books of Kings. Those ancient registers were apparently much more copious than the books before us; and the compiler of the books of Chronicles often refers to, and makes long extracts from, them.

* ימים דברי.

† παραλειπομενα.

Some suppose that the author of these two books was the same with that of the two books of Kings. The Jews say that they were written by *Ezra*, after the return from the captivity, assisted by *Zechariah* and *Haggai*, who were then alive. But events are mentioned in them of so late a date as to show that he could not have written them in their present form; and there is another objection to his being their author, which is little less forcible: between the books of *Kings* and *Chronicles*, there are numerous variations both in dates and facts, which could not have happened if *Ezra* had been the author of them, or indeed if they had been the work of any one person.

The books of Chronicles are not to be regarded merely as an abridgement of former histories with some useful additions, but as books written with a particular view; which seems to have been to furnish a genealogical register of the twelve tribes, deduced from the earliest times, in order to point out those distinctions which were necessary to discriminate the mixed multitude which returned from Babylon; to ascertain the lineage of Judah;

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28 The book of Ezra.

The book of Ezra, and also that of Nehemiah, are attributed by the ancients to the former of these prophets; and they called them the 1st and 2d books of Esdras; which title is still kept up by the Latin church. It is indeed highly probable that the former of these books, which comprises the history of the Jews from the time that Cyrus made the decree for their return until the twentieth year of Artaxerxes Longimanus (which was about 100 years, or as others think 79 years), was all composed by Ezra, except the first six chapters, which contain an account of the first return of the Jews on the decree of Cyrus: whereas Ezra did not return till the time of Artaxerxes. It is of this second return therefore that he writes the account: and adding it to the other, which he found composed to his hand, he made it a complete history of the Jewish restoration.

This book is written in Chaldee from Chap. iv. 8. to chap. vii. 27. As this part of the works chiefly contains letters, conversations, and decrees expressed in that language, the fidelity of the historian has probably induced him to take down the very words which were used. The people, too, had been accustomed to the Chaldee during the captivity, and probably understood it better than Hebrew; for it appears from Nehemiah's account, chap. viii. 2, 8. that all could not understand the law.

29 Of Nehemiah.

The book of Nehemiah, as has been already observed, bears, in the Latin bibles, the title of the *second book of Esdras*; the ancient canons likewise give it the same name, because, perhaps, it was considered as a sequel to the book of Ezra. In the Hebrew bibles it has the name of *Nehemiah* prefixed to it; which name is retained in the English bible. But though that chief is by the writer of the second book of Maccabees affirmed to have been the author of it, there cannot, we think, be a doubt, either that it was written at a later period, or had additions made to it after Nehemiah's death.

With the book of Nehemiah the history of the Old Testament concludes. This is supposed to have taken place about A. M. 3574, A. C. 434. But Prideaux with more probability has fixed it at A. M. 3595. See NEHEMIAH.

30 Of Esther.

It is uncertain who was the author of the book of Esther. *Clement* of Alexandria, and many commentators, have ascribed it to Mordecai; and the book itself seems to favour this opinion; for we are told in chap. ix. 20. that "Mordecai wrote these things." Others have supposed that Ezra was the author; but the more probable opinion of the Talmudists is, that the great synagogue (see SYNAGOGUE), to perpetuate the memory of the deliverance of the Jews from the conspiracy of Haman, and to account for the origin of the feast of Purim, ordered this book to be composed, very likely of materials left by Mordecai, and afterwards approved and admitted it into the sacred canon. The time when the events which it relates happened, is supposed by some to have been in the reign of Artaxerxes Longimanus, and by others in that of Darius the son of Hystaspes, called by the sacred penman *Ahasuerus*.

31 Of Job.

Concerning the author of the book of Job there are many different opinions. Some have supposed that Job himself wrote it in *Syriac* or *Arabic*, and that it was afterwards translated by Moses. Others have thought that *Elihu* wrote it; and by others it is ascribed to Moses, to Solomon, to Isaiah, and to Ezra. To give even an abridgement of the arguments brought in support of these various opinions would fill a volume, and at last leave the reader in his present uncertainty. He who has leisure and inclination to weigh them may study the second section of the sixth book of Warburton's Divine Legation of Moses, together with the several works there referred to; but the question at issue is of very little importance to us. The book of Job, by whomsoever it was written, and whether it be a real history, or a dramatical poem founded on history, has been always esteemed a portion of canonical scripture, and is one of the most sublime compositions in the sacred volume.

The book of Job appears to stand single and unparalleled in the sacred volume. It seems to have little connexion with the other writings of the Hebrews, and no relation whatever to the affairs of the Israelites. The scene is laid in Idumæa (H); the history of an inhabitant,

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(H) "The information which the learned have endeavoured to collect from the writings and geography of the Greeks concerning the country and residence of Job and his friends, appears to me (says Dr Lowth) so very inconclusive, that I am inclined to take a quite different method for the solution of this question, by applying solely to the Sacred Writings: the hints with which they have furnished me towards the illustration of this subject, I shall explain as briefly as possible.

"The land of *Uz*, or *Gnutz*, is evidently *Idumæa*, as appears from Lam. iv. 21. *Uz* was the grandson of Seir the Horite, Gen. xxxvi. 20, 21, 28. 1 Chron. i. 38, 42. Seir inhabited that mountainous tract which was called by his name antecedent to the time of Abraham; but his posterity being expelled, it was occupied by the Idumæans: Gen. xiv. 6. Deut. ii. 12. Two other men are mentioned of the name of *Uz*; one the grandson of Shem, the other the son of Nachor, the brother of Abraham: but whether any district was called after their name is not clear. Idumæa is a part of Arabia Petræa, situated on the southern extremity of the tribe of Judah: Numb. xxxiv. 3. Josh. xv. 1, 21. The land of Uz therefore appears to have been between Egypt and Philistia, Jer. xxv. 20. where the order of the places seems to have been accurately observed in reviewing the different nations from Egypt to Babylon; and the same people seem again to be described in exactly the same situations, Jer. xlvi.—1.

"*Children of the East*, or *Eastern people*, seems to have been the general appellation for that mingled race of people (as they are called, Jer. xxv. 20.) who inhabited between Egypt and the Euphrates, bordering upon Judea from the south to the east; the Idumæans, the Amalekites, the Midianites, the Moabites, the Ammonites. See Judges vi. 3. and Isa. xi. 14. Of these the Idumæans and Amalekites certainly possessed the southern parts. See Numb. xxxiv. 3. xiii. 29. 1 Sam. xxvii. 8, 10. This appears to be the true state of the case: The

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habitant of that country is the basis of the narrative; the characters who speak are Idumæans, or at least Arabians of the adjacent country, all originally of the race of Abraham. The language is pure Hebrew, although the author appears to be an Idumæan; for it is not improbable that all the posterity of Abraham, Israelites, Idumeans, and Arabians, whether of the family of Keturah or Ishmael, spoke for a considerable length of time one common language. That the Idumæans, however, and the Temanites in particular, were eminent for the reputation of wisdom, appears by the testimony of the prophets Jeremiah and Obadiah:† Baruch also particularly mentions them among "the authors (or expounders) of fables, and searchers out of understanding." ‡

† Jer. xlix. 7. Ob. 8.

The principal personage in this poem is Job; and in his character is meant to be exhibited (as far as is consistent with human infirmity) an example of perfect virtue. This is intimated in the argument or introduction, but is still more eminently displayed by his own actions and sentiments. He is holy, devout, and most piously and reverently impressed with the sacred awe of his divine Creator; he is also upright, and conscious of his own integrity; he is patient of evil, and yet very remote from that insensibility or rather stupidity to which the Stoic school pretended. Oppressed therefore

‡ Baruch iii. 22, 23. 32

The character of Job.

The whole region between Egypt and Euphrates was called the East, at first in respect to Egypt (where the learned Jos. Mede thinks the Israelites acquired this mode of speaking. Mede's *Works*, p. 580.), and afterwards absolutely and without any relation to situation or circumstances. Abraham is said to have sent the sons of his concubines, Hagar and Keturah, "eastward, to the country which is commonly called the East," Gen. xxv. 6. where the name of the region seems to have been derived from the same situation. Solomon is reported "to have excelled in wisdom all the Eastern people, and all Egypt," 1 Kings iv. 30.; that is, all the neighbouring people on that quarter; for there were people beyond the boundaries of Egypt, and bordering on the south of Judea, who were famous for wisdom, namely, the Idumæans (see Jer. xlix. 7. Ob. 8.), to whom we may well believe this passage might have some relation. Thus Jehovah addresses the Babylonians; "Arise, ascend unto Kedar, and lay waste the children of the East," (Jer. xlix. 28.), notwithstanding these were really situated to the west of Babylon. Although Job, therefore, be accounted one of the orientals, it by no means follows that his residence must be in Arabia Deserta.

"*Eliphaz* the *Temanite* was the son of Esau, and Teman the son of Eliphaz, (Gen. xxxvi. 10, 11.) The Eliphaz of Job, was without a doubt of this race. Teman is certainly a city of Idumæa, (Jer. xlix. 7, 20. Ezek. xxv. 13. Amos i. 11, 12. Ob. 8, 9.)

"*Bildad* the *Shuhite*: *Shuah* was one of the sons of Abraham by Keturah, whose posterity were numbered among the people of the East, and his situation was probably contiguous to that of his brother Midian, and of his nephews Shebah and Dedan, (see Gen. xxv. 2, and 3.) Dedan is a city of Idumæa (Jer. xlix. 8.), and seems to have been situated on the eastern side, as Teman was on the west, (Ezek. xxv. 13.) From Sheba originated the Sabeans in the passage from Arabia Felix to the Red Sea: Sheba is united to Midian (Isa. lx. 6.); it is in the same region however with Midian, and not far from Mount Horeb, (Exod. ii. 15. iii. 1.)

"*Zophar* the *Naamathite*: among the cities which by lot fell to the tribe of Judah, in the neighbourhood of Idumæa, Naama is enumerated, (Josh. xv. 21, 41.) Nor does this name elsewhere occur; this probably was the country of Zophar.

"*Elihu* the *Buzite*: Buz occurs but once as the name of a place or country (Jer. xxv. 23.), where it is mentioned along with Dedan and Thema: Dedan, as was just now demonstrated, is a city of Idumæa; Thema belonged to the children of Ishmael, who are said to have inhabited from Havilah, even to Shur, which is in the district of Egypt, (Gen. xxv. 15. 18.) Saul, however, is said to have smitten the Amalekites from Havilah even to Shur, which is in the district of Egypt, (1 Sam. xv. 7.) Havilah cannot, therefore, be very far from the boundaries of the Amalekites; but the Amalekites never exceeded the boundaries of Arabia Petræa. (See Reland Palæstin. lib. i. c. 14.) Thema, therefore, lay somewhere between Havilah and the desert of Shur, to the southward of Judea. Thema is also mentioned in connexion with Sheba, (Job vi. 19.)

"Upon a fair review of these facts, I think we may venture to conclude, still with that modesty which such a question demands, that Job was an inhabitant of Arabia Petræa, as well as his friends, or at least of that neighbourhood. To this solution one objection may be raised: It may be asked, How the Chaldeans, who lived on the borders of the Euphrates, could make depredations on the camels of Job, who lived in Idumæa at so great a distance? This too is thought a sufficient cause for assigning Job a situation in Arabia Deserta, and not far from the Euphrates. But what should prevent the Chaldeans, as well as the Sabeans, a people addicted to rapine, and roving about at immense distances for the sake of plunder, from wandering through these defenceless regions, which were divided into tribes and families rather than into nations, and pervading from Euphrates even to Egypt? Further, I would ask on the other hand, whether it be probable that all the friends of Job who lived in Idumæa and its neighbourhood, should instantly be informed of all that could happen to Job in the desert of Arabia and on the confines of Chaldea, and immediately repair thither? Or whether it be reasonable to think, that, some of them being inhabitants of Arabia Deserta, it should be concerted among them to meet at the residence of Job; since it is evident, that Eliphaz lived at Theman, in the extreme parts of Idumæa? With respect to the *Aisitas* of Ptolemy (for so it is written, and not *Ausitas*) it has no agreement, not so much as in a single letter, with the Hebrew *Gnutz*. The LXX indeed call that country by the name *Ausitida*, but they describe it as situated in Idumæa; and they account Job himself an Idumean, and a descendant of Esau." See the Appendix of the LXX to the book of Job, and *Hyde Not. in Peritzol.* chap. xi *Lowth on Hebrew Poetry.*

Scripture.

therefore with unparalleled misfortunes, he laments his misery, and even wishes a release by death; in other words, he obeys and gives place to the dictates of nature. Irritated, however, by the unjust insinuations and the severe reproaches of his pretended friends, he is more vehemently exasperated, and a too great confidence in his own righteousness leads him to expostulate with God in terms scarcely consistent with piety and strict decorum.

It must be observed, that the first speech of Job, though it bursts forth with all the vehemence of passion, consists wholly of complaint, "the words and sentiments of a despairing person, empty as the wind;" * which is indeed the apology that he immediately makes for his conduct; intimating that he is far from presuming to plead with God, far from daring to call in question the divine decrees, or even to mention his own innocence in the presence of his all-just Creator: nor is there any good reason for the censure which has been passed by some commentators on this passage. The poet seems, with great judgment and ingenuity, to have performed in this what the nature of his work required. He has depicted the affliction and anguish of Job, as flowing from his wounded heart in a manner so agreeable to human nature (and certainly so far venial), that it may be truly said, "in all this Job sinned not with his lips." It is, nevertheless, embellished by such affecting imagery, and inspired with such a warmth and force of sentiment, that we find it afforded ample scope for calumny; nor did the unkind witnesses of his sufferings permit so fair an opportunity to escape. The occasion is eagerly embraced by Eliphaz to rebuke the impatience of Job; and, not satisfied with this, he proceeds to accuse him in direct terms of wanting fortitude, and obliquely to insinuate something of a deeper dye. Though deeply hurt with the coarse reproaches of Eliphaz, still, however, when Job afterwards complains of the severity of God, he cautiously refrains from violent expostulations with his Creator, and, contented with the simple expression of affliction, he humbly confesses himself a sinner. † Hence it is evident, that those vehement and perverse attestations of his innocence, those murmurs against the divine Providence, which his tottering virtue afterwards permits, are to be considered merely as the consequences of momentary passion, and not as the ordinary effects of his settled character or manners. They prove him at the very worst not an irreligious man, but a man possessed of integrity, and too confident of it; a man oppressed with almost every imaginable evil, both corporal and mental, and hurried beyond the limits of virtue by the strong influence of pain and affliction. When, on the contrary, his importunate visitors abandon by silence the cause which they had so wantonly and so maliciously maintained, and cease unjustly to load him with unmerited criminations; though he defends his argument with scarcely less obstinacy, yet the vehemence of his grief appears gradually to subside, he returns to himself, and explains his sentiments with more candour and sedateness: and however we may blame him for assuming rather too much arrogance in his appeals to the Almighty, certainly his defence against the accusations of Eliphaz is no more than the occasion will strictly justify. Observe, in the first place, how admirably the confidence and perseverance of Job is displayed in replying to the slander of his false friends:

* Job. vi. 26.

† See chap. vii. 20.

33 His confidence and perseverance.

As God liveth, who hath removed my judgment;
Nay, as the Almighty liveth, who hath imbittered my soul;
Verily as long as I have life in me;
And the breath of God is in my nostrils;
My lips shall not speak perversity,
Neither shall my tongue whisper prevarication.
God forbid that I should declare you righteous!
Till I expire I will not remove my integrity from me.
I have fortified myself in my righteousness,
And I will not give up my station:
My heart shall not upbraid me as long as I live.
May mine enemy be as the impious man,
And he that riseth up against me as the wicked. *

* Chap. xxvii. 2—7.

But how magnificent, how noble, how inviting and beautiful is that image of virtue in which he delineates his past life! What dignity and authority does he seem to possess!

If I came out to the gate, nigh the place of public resort,
If I took up my seat in the street;
The young men saw me, and they hid themselves;
Nay, the very old men rose up and stood.
The princes refrained talking,
Nay, they laid their hands on their mouths.
The nobles held their peace,
And their tongue cleaved to the roof of their mouth. †

† Chap. xxix. 7—10.

What liberality! what a promptitude in beneficence!

Because the ear heard, therefore it blessed me;
The eye also saw, therefore it bore testimony for me,
That I delivered the poor who cried,
The orphan also, and him who had no helper.
The blessing of him who was ready to perish came upon me,
And I caused the heart of the widow to sing for joy. ‡

‡ Chap. xxix. 11—15.

What sanctity, what integrity in a judicial capacity!

I put on righteousness, and it clothed me like a robe;
My justice also was a diadem.
I was a father to the poor,
And the controversy which I knew not, I searched it out.
Then brake I the grinders of the oppressor,
And I plucked the prey out of his teeth. §

§ Chap. xxix. 14, 16, 17.

But what can be more engaging than the purity of his devotion, and his reverence for the Supreme Being, founded on the best and most philosophical principles? Besides that through the whole there runs a strain of the most amiable tenderness and humanity.

For what is the portion which God distributeth from above,
And the inheritance of the Almighty from on high?
Is it not destruction to the wicked,
And banishment from their country to the doers of iniquity?
Doth he not see my ways?
And numbereth he not all my steps?
If I should despise the cause of my servant,

Or

Scripture.

Or my maid, when they had a controversy with me,
What then should I do when God ariseth,
And when he visiteth, what answer could I make him?
Did not he who formed me in the belly form him,
And did not one fashion us in the womb! †

† Chap. xxxi. 2—4. 13—15.

34 Characters of his three friends.

The three friends are exactly such characters as the nature of the poem required. They are severe, irritable, malignant censors, readily and with apparent satisfaction deviating from the purpose of consolation into reproof and contumely. Even from the very first they manifest this evil propensity, and indicate what is to be expected from them. The first of them, indeed, in the opening of his harangue, assumes an air of candour.

Would'st thou take it unkindly that one should essay to speak to thee? ‡

‡ Chap. iv. 2.

Indignation is, however, instantly predominant:

But a few words who can forbear?

The second flames forth at once:

How long wilt thou trifle in this manner?
How long shall the words of thy mouth be as a mighty wind? §

§ Chap. viii. 2.

But remark the third:

Shall not the master of words be answered?
Or shall a man be acquitted for his fine speeches?
Shall thy prevarications make men silent?
Shall thou even scoff, and there be no one to make thee ashamed? *

* Chap. xi. 2, 3.

35 Of Elihu.

The lenity and moderation of Elihu serves as a beautiful contrast to the intemperance and asperity of the other three. He is pious, mild, and equitable; equally free from adulation and severity; and endued with singular wisdom, which he attributes entirely to the inspiration of God: and his modesty, moderation, and wisdom, are the more entitled to commendation when we consider his unripe youth. As the characters of his detractors were in all respects calculated to inflame the mind of Job, that of this arbitrator is admirably adapted to soothe and compose it: to this point the whole drift of the argument tends, and on this the very purport of it seems to depend.

Another circumstance deserving particular attention in a poem of this kind, is the sentiment; which must be agreeable to the subject, and embellished with proper expressions. It is by Aristotle enumerated among the essentials of a dramatic poem; not indeed as peculiar to that species of poetry alone, but as common, and of the greatest importance, to all. Manners or character are essential only to that poetry in which living persons are introduced; and all such poems must afford an exact representation of human manners: but sentiment is essential to every poem, indeed to every composition whatever. It respects both persons and things. As far as it regards persons, it is particularly concerned in the delineation of the manners and passions: and those instances to which we have just been adverting, are sentiments expressive of manners. Those which relate to the delineation of the passions, and to the description of other subjects, yet remain unnoticed.

The poem of Job abounds chiefly in the more vehement passions, grief and anger, indignation and violent contention. It is adapted in every respect to the incitement of terror; and, as the specimens already quoted will sufficiently prove, is universally animated with the true spirit of sublimity. It is, however, not wanting in the gentler passions. The following complaints, for instance, are replete with an affecting spirit of melancholy.

36 Sentiments of the poem of Job.

Man, the offspring of a woman,
Is of few days, and full of inquietude;
He springeth up, and is cut off like a flower;
He flee-eth like a shadow, and doth not abide:
On such a creature dost thou open thine eyes?
And wilt thou bring me even into judgment with thee?
Turn thy look from him, that he may have some respite,
Till he shall, like a hireling, have completed his day. ††

†† Chap. xiv. 1, 2, 5, 6.

The whole passage abounds with the most beautiful imagery, and is a most perfect specimen of the Elegiac. His grief afterwards becomes more fervent; but is at the same time soft and querimonious:

How long will ye vex my soul,
And tire me with vain harangues?
These ten times have ye loaded me with reproaches,
Are ye not ashamed that ye are so obstinate against me!
Pity me, O pity me, ye are my friends,
For the hand of God hath smitten me.
Why will ye be my persecutors as well as God,
And therefore will ye not be satisfied with my flesh? ‡‡

‡‡ Chap. xix. 2, 3, 21, 22.

The ardour and alacrity of the war-horse, and his eagerness for battle, are painted with a masterly hand.

37 Its sublimity.

For eagerness and fury he devoureth the very ground:
He believeth it not when he heareth the trumpet.
When the trumpet soundeth, he saith, ahah?
Yea he scenteth the battle from afar,
The thunder of the chieftains and their shouts. *

* Chap. xxxix. 24, 25.

The following sublime description of the creation is admirable.

Where wast thou when I laid the foundations of the earth?
If thou knowest, declare.
Say, who fixed the proportions of it, for surely thou knowest?
Or who stretched out the line upon it?
On what were its foundations fixed?
Or who laid the corner-stone thereof?
When the morning-stars sang together,
And all the sons of God shouted for joy;
When the sea was shut up with doors;
When it burst forth as an infant that cometh out of the womb;
When I placed the cloud for its robe,
And thick darkness for its swadling-band;
When I fixed my boundary against it,
When I placed a bar and gates;
When I said, Thus far shalt thou come, and not advance,
And here shall a stop be put to the pride of thy waves. †† Job. xxxviii. 4—11.

Let it suffice to say, that the dignity of the style is answerable to that of the subject; its force and energy, to the greatness of those passions which it describes: and as this production excels all the other remains of the

the Hebrew poetry in economy and arrangement, so it yields to none in sublimity of style and in every grace and excellence of composition. Among the principal of these may be reckoned the accurate and perfectly poetical conformation of the sentences, which is indeed generally most observable in the most ancient of the poetical compositions of the Hebrews. Here, however, as is natural and proper in a poem of so great length and sublimity, the writer's skill is displayed in the proper adjustment of the periods, and in the accurate distribution of the members, rather than in the antithesis of words, or in any laboured adaptation of the parallelisms.

38 The book of Psalms. * תהלים ספר.

The word *Psalms* is a Greek term, and signifies *Songs*. The Hebrews call it *Sepher Tehillim*, * that is, "the Book of Praises;" and in the Gospel it is styled the Book of Psalms. Great veneration has always been paid to this collection of divine songs. The Christian church has from the beginning made them a principal part of her holy services; and in the primitive times it was almost a general rule that every bishop, priest, and religious person, should have the psalter by heart.

Many learned fathers, and not a few of the moderns, have maintained that *David* was the author of them all. Several are of a different opinion, and insist that David wrote only 72 of them; and that those without titles are to be ascribed to the authors of the preceding psalms, whose names are affixed to them. Those who suppose that David alone was the author, contend, that in the New Testament, and in the language of the church universal, they are expressly called the *Psalms of David*. That David was the principal author of these hymns is universally acknowledged, and therefore the whole collection may properly enough go under his name; but that he wrote them all, is a palpable mistake. Nothing certain can be gathered from the titles of the psalms; for although unquestionably very ancient, yet authors are not agreed as to their authority, and they differ as much about their signification. The Hebrew doctors generally agree that the 92d psalm was composed by Adam; an opinion which for many reasons we are not inclined to adopt. There seems, however, to be no doubt that some of them were written by Moses; that Solomon was the author of the 49th; and that others were occasioned by events long posterior to the flourishing era of the kingdom of Judah. The 137th particularly is one of those which mentions the captivity of Babylon.

39 Written by different authors.

The following arrangement of the Psalms, after a careful and judicious examination, has been adopted by Calmet.

1. Eight Psalms of which the date is uncertain, viz. 1, 4, 19, 81, 91, 110, 139, 145. The first of these was composed by David or Ezra, and was sung in the temple at the feast of trumpets held in the beginning of the year, and at the feast of tabernacles. The 81st is attributed to Asaph, and the 110th to David. The authors of the rest are unknown.

2. The Psalms composed by David during the persecution of Saul. These are seventeen, 11, 31, 34, 56, 16, 54, 52, 109, 17, 22, 35, 57, 58, 142, 140, 141, 7.

3. The Psalms composed by David at the beginning of his reign, and after the death of Saul. These are sixteen, 2, 9, 24, 63, 101, 29, 20, 21, 28, 39, 40, 41, 6, 51, 32, 33.

4. The Psalms written by David during the rebellion of Absalom are eight in number, 3, 4, 55, 62, 70, 71, 143, 144.

5. The Psalms written between the death of Absalom and the captivity, which are ten, 18, 30, 72, 45, 78, 82, 83, 76, 74, 79: of these David wrote only three; 18, 30, and 72.

6. The Psalms composed during the captivity, which amount to forty. These were chiefly composed by the descendants of Asaph and Korah: they are, 10, 12, 13, 14, 53, 15, 25, 26, 27, 28, 36, 37, 42, 43, 44, 49, 50, 60, 64, 69, 73, 75, 77, 80, 84, 86, 88, 89, 90, 92, 93, 94, 95, 99, 120, 121, 123, 130, 131, 132.

Lastly, Those hymns of joy and thanksgiving, written on the release from the Babylonish captivity, and at the building and dedication of the temple. These are, 122, 61, 63, 124, 23, 87, 85, 46, 47, 48, from 96 to 117 inclusive, 126, 133 to 137 inclusive, 149, 150, 146, 147, 148, 59, 65, 66, 67, 118, 125, 127, 128, 129, 138.—According to this distribution, only 45 are positively assigned to David.

Josephus, and most of the ancient writers, assert, that the Psalms were composed in numbers: little, however, respecting the nature and principles of the Hebrew versification is known.

40 Observations on the Hebrew poetry.

There existed a certain kind of poetry among the Hebrews, principally intended, it would appear, for the assistance of the memory; in which, when there was little connexion between the sentiments, a sort of order or method was preserved, by the initial letters of each line or stanza following the order of the alphabet. Of this there are several examples extant among the sacred poems (1); and in these examples the verses are so exactly marked and defined, that it is impossible to mistake them for prose; and particularly if we attentively consider the verses, and compare them with one another, since they are in general so regularly accommodated, that word answers to word, and almost syllable to syllable. This being the case, though an appeal can scarcely be made to the ear on this occasion, the eye itself will distinguish the poetic division and arrangement, and also that some labour and accuracy has been employed in adapting the words to the measure.

The Hebrew poetry has likewise another property altogether peculiar to metrical composition. It admits foreign words and certain particles, which seldom occur in prose composition, and thus forms a distinct poetical dialect. One or two of the peculiarities also of the Hebrew versification it may be proper to remark, which as they are very observable in those poems in which the verses are defined by the initial letters, may at least be reasonably conjectured of the rest. The first of these is, that the verses are very unequal in length; the shortest consisting of six or seven syllables; the longest extending

(1) Psalms xxv. xxxiv. xxxvii. cxi. cxii. cxix. cxlv. Prov. xxxi. from the 10th verse to the end. The whole of the Lamentations of Jeremiah except the last chapter.

tending to about twice that number: the same poem is, however, generally continued throughout in verses not very unequal to each other. It must also be observed, that the close of the verse generally falls where the members of the sentences are divided.

But although nothing certain can be defined concerning the metre of the particular verses, there is yet another artifice of poetry to be remarked of them when in a collective state, when several of them are taken together. In the Hebrew poetry, as is formerly remarked, there may be observed a certain conformation of the sentences; the nature of which is, that a complete sense is almost equally infused into every component part, and that every member constitutes an entire verse. So that, as the poems divide themselves in a manner spontaneously into periods, for the most part equal; so the periods themselves are divided into verses, most commonly couplets, though frequently of greater length. This is chiefly observable in those passages which frequently occur in the Hebrew poetry, in which they treat one subject in many different ways, and dwell on the same sentiment; when they express the same thing in different words, or different things in a similar form of words; when equals refer to equals, and opposites to opposites: and since this artifice of composition seldom fails to produce even in prose an agreeable and measured cadence —we can scarcely doubt that it must have imparted to their poetry, were we masters of the versification, an exquisite degree of beauty and grace.

41 Peculiarities of it.

The elegant and ingenious Dr Lowth has with great acuteness examined the peculiarities of Hebrew poetry, and has arranged them under general divisions. The correspondence of one verse or line with another he calls *parallelism*. When a proposition is delivered, and a second is subjoined to it, equivalent or contrasted with it in sense, or similar to it in the form of grammatical construction, these he calls *parallel lines;* and the words or phrases answering one to another in the corresponding lines, *parallel terms*. Parallel lines he reduces to three sorts; parallels synonymous, parallels antithetic, and parallels synthetic. Of each of these we shall present a few examples.

First, of parallel lines synonymous, which correspond one to another by expressing the same sense in different but equivalent terms.

O-Jehovah, in-thy-strength the-king shall-rejoice;
And-in-thy-salvation how greatly shall-he-exult!
The-desire of-his-heart thou-hast-granted unto-him;
And-the-request of-his-lips thou-hast-not denied.
Ps. xxi. 1, 2.

Because I-called, and-ye-refused;
I-stretched-out my-hand, and-no-one regarded;
But-ye-have-defeated all my-counsel;
And-would-not incline to-my-reproof:
I also will-laugh at-your-calamity;
I-will-mock, when-what-you-feared cometh;
When-what-you-feared cometh like-a-devastation;
And-your-calamity advanceth like-a-tempest;
When distress and-anguish come upon-you:
Then shall-they-call-upon-me, but-I-will-not answer;
They-shall-seek-me-early, but-they-shall-not find-me;
Because they-hated knowledge;
And-did-not choose the-fear of-Jehovah;
Did-not incline to-my-counsel;
Contemptuously-rejected all my-reproof;
Therefore-shall-they-eat of-the-fruit of-their-ways;
And-shall-be-satiated with-their-own-devices.
For the-defection of-the-simple shall-slay-them;
And-the-security of-fools shall-destroy them.
Prov. i. 24—32.

Seek-ye Jehovah, while-he-may-be-found;
Call-ye-upon-him, while-he-is near;
Let-the-wicked forsake his-way;
And-the-unrighteous man his-thoughts:
And-let-him-return to Jehovah, and-he-will compassionate-him;
And unto our-God, for he-aboundeth in-forgiveness. (K) Isaiah lv. 6, 7.

These synonymous parallels sometimes consist of two, three, or more synonymous terms. Sometimes they are formed by a repetition of part of the first sentence. As,

What shall I do unto thee, O Ephraim!
What shall I do unto thee, O Judah!
For your goodness is as the morning cloud,
And as the early dew it passeth away.
Hosea, vi. 4.

The following is a beautiful instance of a parallel triplet, when three lines correspond and form a kind of stanza, of which two only are synonymous.

That day, let it become darkness;
Let not God from above inquire after it,
Nor let the flowing light radiate upon it.
That night, let utter darkness seize it;
Let it not be united with the days of the year;
Let it not come into the number of the months.
Let the stars of its twilight be darkened;
Let it look for light, and may there be none;
And let it not behold the eyelids of the morning.
Job iii. 4, 6, 9.

The second sort of parallels are the antithetic, when two lines correspond with one another by an opposition of terms and sentiments; when the second is contrasted with the first, sometimes in expressions, sometimes in sense only. Accordingly the degrees of antithesis are various: from an exact contraposition of word to word through the whole sentence, down to a general disparity, with something of a contrariety, in the two propositions. Thus in the following examples:

A wise son rejoiceth his father;
But a foolish son is the grief of his mother.
Prov. x. 1.

Where every word hath its opposite; for the terms *father* and *mother* are, as the logicians say, relatively opposite.

The memory of the just is a blessing;
But the name of the wicked shall rot. Prov. x. 7.

Here

(K) All the words bound together by hyphens answer to single words in Hebrew.

Here there are only two antithetic terms: for *memory* and *name* are synonymous.

There is that scattereth, and still increaseth;
And that is unreasonably sparing, yet groweth poor.
Prov. xi. 24.

Here there is a kind of double antithesis; one between the two lines themselves; and likewise a subordinate opposition between the two parts of each.

These in chariots, and those in horses;
But we in the name of Jehovah our God will be strong.
They are bowed down, and fallen;
But we are risen, and maintain ourselves firm.
Ps. xx. 7, 8.

For his wrath is but for a moment, his favour for life;
Sorrow may lodge for the evening, but in the morning gladness. Ps. xxx. 5.

Yet a little while, and the wicked shall be no more;
Thou shalt look at his place, and he shall not be found:
But the meek shall inherit the land;
And delight themselves in abundant prosperity.
Ps. xxxvii. 10, 11.

In the last example the opposition lies between the two parts of a stanza of four lines, the latter distich being opposed to the former. So likewise the following:

For the mountains shall be removed;
And the hills shall be overthrown:
But my kindness from thee shall not be removed;
And the covenant of my peace shall not be overthrown.
Isaiah liv. 10.

Isaiah by means of the antithetic parallelism, without departing from his usual dignity, adds greatly to the sweetness of his composition in the following instances:

In a little anger have I forsaken thee;
But with great mercies will I receive thee again:
In a short wrath I hid my face for a moment from thee;
But with everlasting kindness will I have mercy on thee.
Isaiah liv. 7, 8.

Behold my servants shall eat, but ye shall be famished;
Behold my servants shall drink, but ye shall be thirsty;
Behold my servants shall rejoice, but ye shall be confounded;
Behold my servants shall sing aloud, for gladness of heart,
But ye shall cry aloud for grief of heart;
And in the anguish of a broken spirit shall ye howl.
Isaiah lxv. 13, 14.

Frequently one line or member contains two sentiments:

The nations raged; the kingdoms were moved:
He uttered a voice; the earth was dissolved:
Be still, and know that I am God:
I will be exalted in the nations, I will be exalted in the earth. Ps. xlvi. 6, 10.

When thou passest through waters I am with thee;
And through rivers, they shall not overwhelm thee:
When thou walkest in the fire thou shalt not be scorched;
And the flame shall not cleave to thee.
Isaiah xliii. 2.

The third sort of parallels is the synthetic or constructive: where the parallelism consists only in the similar form of construction; in which word does not answer to word, and sentence to sentence, as equivalent or opposite; but there is a correspondence and equality between different propositions, in respect of the shape and turn of the whole sentence, and of the constructive parts; such as noun answering to noun, verb to verb, member to member, negative to negative, interrogative to interrogative.

Lo! he withholdeth the waters, and they are dried up:
And he sendeth them forth, and they overturn the earth.
With him is strength, and perfect existence;
The deceived, and the deceiver are his.
Job xii. 13—16.

Is such then the fast which I choose?
That a man should afflict his soul for a day?
Is it, that he should bow down his head like a bulrush,
And spread sackcloth and ashes for his couch?
Shall this be called a fast,
And a day acceptable to Jehovah?
Is not this the fast that I choose?
To dissolve the bands of wickedness;
To loosen the oppressive burdens;
To deliver those that are crushed by violence;
And that ye should break asunder every yoke?
Is it not to distribute thy bread to the hungry?
And to bring the wandering poor into thy house?
When thou seest the naked, that thou clothe him;
And that thou hide not thyself from thine own flesh?
Then shall thy light break forth like the morning;
And thy wounds shall speedily be healed over:
And thy righteousness shall go before thee;
And the glory of Jehovah shall bring up thy rear.
Isaiah lviii. 5—8.

We shall produce another example of this species of parallelism from Ps. xix. 8—11. from Dr Lowth:

The law of Jehovah is perfect, restoring the soul;
The testimony of Jehovah is sure, making wise the simple:
The precepts of Jehovah are right, rejoicing the heart;
The commandment of Jehovah is clear, enlightening the eyes:
The fear of Jehovah is pure, enduring for ever;
The judgments of Jehovah are truth, they are just altogether;
More desirable than gold, or than much fine gold;
And sweeter than honey, or the dropping of honeycombs.

Synonymous parallels have the appearance of art and concinnity, and a studied elegance; they chiefly prevail in shorter poems; in many of the Psalms; in Balaam's prophecies; frequently in those of Isaiah, which are most of them distinct poems of no great length. The antithetic parallelism gives an acuteness and force to adages and moral sentences; and therefore abounds in Solomon's Proverbs, and elsewhere is not often to be met with. The poem of Job, being on a large scale and in a high tragic style, though very exact in the division of the lines and in the parallelism, and affording many fine examples of the synonymous kind, consists chiefly

chiefly of the constructive. A happy mixture of the several sorts gives an agreeable variety; and they mutually serve to recommend and set off one another.

The reader will perceive that we have derived every thing we have said relating to Hebrew poetry from the elegant Lectures of Dr Lowth, which are beautifully translated by Mr Gregory, a distinguished author as well as translator.

42 The book of Proverbs. * משלי

The book of Proverbs has always been accounted canonical. The Hebrew title of it is *Mishli* *, which signifies "similitudes." It has always been ascribed to Solomon, whose name it bears, though some have doubted whether he really was the author of every one of the maxims which it contains. Those in chap. xxx. are indeed called *the words of Agur* the son of *Jakeh*, and the title of the 31st or last chapter is *the words* of King *Lemuel*. It seems certain that the collection called the *Proverbs of Solomon* was digested in the order in which we now have it by different hands; but it is not, therefore, to be concluded that they are not the work of Solomon. Several persons might have made collections of them: Hezekiah, among others, as mentioned chapter xxv. Agur and Ezra might have done the same. From these several collections the work was compiled which we have now in our hands.

The book of Proverbs may be considered under five divisions. 1. The first, which is a kind of preface, extends to the 10th chapter. This contains general cautions and exhortations from a teacher to his pupil, expressed in elegant language, duly connected in its parts, illustrated with beautiful description, and well contrived to engage and interest the attention.

2. The second part extends from the beginning of chap. x. to chap. xxii. 17. and consists of what may strictly and properly be called proverbs, viz. unconnected sentences, expressed with much neatness and simplicity. They are truly, to use the language of their sage author "apples of gold in pictures of silver."

3. In the third part, which is concluded between chapter xxii. 16. and chapter xxv. the tutor drops the sententious style, addresses his pupil as present, and delivers his advices in a connected manner.

4. The proverbs which are included between chapter xxv. and chapter xxx. are supposed to have been selected by *the men of Hezekiah* from some larger collection of Solomon, that is, by the prophets whom he employed to restore the service and writings of the church. Some of the proverbs which Solomon had introduced into the former part of the book are here repeated.

5. The prudent admonitions which Agur delivered to his pupils Ithiel and Ucal are contained in the 30th chapter, and in the 31st are recorded the precepts which the mother of Lemuel delivered to her son.

Several references are evidently made to the book of Proverbs by the writers of the New Testament. †

† Rom. xii. 16, 20. 1 Pet. iv. 8. v. 5. James iv. 6.

The Proverbs of Solomon afford specimens of the didactic poetry of the Hebrews. They abound with antithetic parallels; for this form is peculiarly adapted to that kind of writing, to adages, aphorisms, and detached sentences. Indeed, the elegance, acuteness, and force of a great number of Solomon's wise sayings arise in a great measure from the antithetic form, the opposition of diction and sentiment. Take the following examples.

The blows of a friend are faithful;
But the kisses of an enemy are treacherous.
The cloyed will trample on an honeycomb;
But to the hungry every bitter thing is sweet.
There is who maketh himself rich, and wanteth all things;
Who maketh himself poor, yet hath much wealth.
The rich man is wise in his own eyes,
But the poor man that hath discernment to trace him out will despise him. *

* Proverbs xxvii. 6. 7. xiii. 7. xxviii. 11.

43 Ecclesiastes.

The Hebrew title of the book which we call Ecclesiastes is *Keleth*, that is, the *Gatherer* or *Collector*; and it is so called, either because the work itself is a *collection* of maxims, or because it was delivered to an assembly *gathered* together to hear them. The Greek term *Ecclesiastes* is of the same import, signifying one who *gathers* together a congregation, or who *discourses* or *preaches* to an assembly convened. That Solomon was the author of this book is beyond all doubt; the beautiful description of the phenomena in the natural world, and their causes; of the circulation of the blood, as some think, † and the economy of the human frame, † shows it to be the work of a philosopher. At what period of his life it was written may be easily found out. The affecting account of the infirmities of old age which it contains, is a strong indication that the author knew by experience what they were; and his complete conviction of the vanity of all earthly enjoyments proves it to have been the work of a penitent. Some passages in it seem, indeed, to express an Epicurean notion of Providence. But it is to be observed, that the author, in an academic way, disputes on both sides of the question; and at last concludes properly, that to "fear God and keep his commandments is the whole duty of man; for God (says he) will bring every work to judgment, and every secret thing, whether it be good, or whether it be evil."

† See *Horsley's Sermon before the Humane Society.*

The general tenor and style of Ecclesiastes is very different from the book of Proverbs, though there are many detached sentiments and proverbs interspersed. For the whole work is uniform, and confined to one subject, namely, the vanity of the world exemplified by the experience of Solomon, who is introduced in the character of a person investigating a very difficult question, examining the arguments on either side, and at length disengaging himself from an anxious and doubtful disputation. It would be very difficult to distinguish the parts and arrangement of this production: the order of the subject, and the connexion of the arguments, are involved in so much obscurity, that scarcely any two commentators have agreed concerning the plan of the work, and the accurate division of it into parts or sections. The truth is, the laws of methodical composition and arrangement were neither known by the Hebrews nor regarded in their didactic writings. They uniformly retained the old sententious manner, nor did they submit to method, even where the occasion appeared to demand it. The style of this work is, however, singular; the language is generally low; it is frequently loose, unconnected, approaching to the incorrectness of conversation; and possesses very little of the poetical character, even in the composition and structure of the periods: which peculiarity may possibly be accounted

Lowth's Hebrew Poetry.

Scripture.

counted for from the nature of the subject. Contrary to the opinion of the Rabbies, Ecclesiastes has been classed among the poetical books; though, if their authority and opinions were of any weight or importance, they might perhaps on this occasion deserve some attention.

44 Song of Solomon.

The Song of Solomon, in the opinion of Dr Lowth, is an *epithalamium* or nuptial dialogue, in which the principal characters are Solomon, his bride, and a chorus of virgins. Some are of opinion that it is to be taken altogether in a literal sense; but the generality of Jews and Christians have esteemed it wholly allegorical, expressing the union of Jesus Christ and the church. Dr Lowth has supported the common opinion, by showing that the sacred writers often apply metaphors to God and his people derived from the conjugal state. Our Saviour is styled a *bridegroom* by John the Baptist (John iii.), and is represented in the same character in the parable of the ten virgins. Michaelis, on the other hand, rejects the argument drawn from analogy as inconclusive, and the opinion of Jews and Christians as of no greater authority than the opinion of the moderns.

The second of those great divisions under which the Jews classed the books of the Old Testament was that of the Prophets, which formerly comprehended 16 books.

The Prophets were 16 in number: Isaiah, Jeremiah, Ezekiel, Daniel, Hosea, Joel, Amos, Obadiah, Jonah, Micah, Nahum, Habakkuk, Zephaniah, Haggai, Zechariah, Malachi. The first four are called the *greater* prophets; the other twelve are denominated the *minor* prophets.

45 Writings of the prophets.

The writings of the Prophets are to Christians the most interesting part of the Old Testament; for they afford one of the most powerful arguments for the divine origin of the Christian religion. If we could only prove, therefore, that these prophecies were uttered a single century before the events took place to which they relate, their claim to inspiration would be unquestionable. But we can prove that the interval between their enunciation and accomplishment extended much farther, even to 500 and 1000 years, and in some cases much more.

46 Their authenticity.

The books of the prophets are mentioned by Josephus, and therefore surely existed in his time; they are also quoted by our Saviour, under the general denomination of the *Prophets*. We are informed by Tacitus and Suetonius, that about 60 years before the birth of our Saviour there was an universal expectation in the east of a great personage who was to arise; and the source of this expectation is traced by the same writers to the sacred books of the Jews. They existed also in the time of Antiochus Epiphanes, A. C. 161; for when that tyrant prohibited the reading of the law, the books of the Prophets were substituted in its place, and were continued as a part of the daily service after the interdict against the law of Moses was taken off. We formerly remarked, that references are made by the author of *Ecclesiasticus*, A. C. 200, to the writings of Isaiah, Jeremiah, and Ezekiel, and that he mentions the 12 Prophets. We can ascend still higher, and assert from the language of the Prophets, that all their writings must have been composed before the Babylonish captivity, or within a century after it; for all of them, except Daniel and Ezra, are composed in Hebrew, and even in them long passages are found in that language: but it is a well known fact, that all the books written by Jews about two centuries after that era are composed in the Syriac, Chaldaic, or Greek language. "Let any man (says Michaelis) compare what was written in Hebrew after the Babylonish exile, and, I apprehend, he will perceive no less evident marks of decay than in the Latin language." Even in the time of Ezra, the common people, from their long residence in Babylon, had forgotten the Hebrew, and it was necessary for the learned to interpret the law of Moses to them. We can therefore ascertain with very considerable precision the date of the prophetic writings; which indeed is the only important point to be determined: For whether we can discover the authors or not, if we can only establish their ancient date, we shall be fully entitled to draw this conclusion, that the predictions of the Prophets are inspired.

47 and inspiration.

Much has been written to explain the nature of inspiration, and to show by what methods God imparted to the Prophets that divine knowledge which they were commanded to publish to their countrymen. Attempts have been made to disclose the nature of dreams and visions, and to describe the ecstacy or rapture to which the prophets were supposed to be raised while they uttered their predictions. Not to mention the degrading and indecent comparison which this last circumstance suggests, we shall only inform those who expect here an explanation of the prophetic dreams and visions, that *we shall not attempt to be wise above what is written*. The manner in which the allwise and unseen God may think proper to operate upon the minds of his creatures, we might expect *à priori* to be mysterious and inexplicable. Indeed such an inquiry, though it were successful, would only gratify curiosity, without being in the least degree conducive to useful knowledge.

The business of philosophy is not to inquire how almighty power produced the frame of nature, and bestowed upon it that beauty and grandeur which is everywhere conspicuous, but to discover those marks of intelligence and design, and the various purposes to which the works of nature are subservient. Philosophy has of late been directed to theology and the study of the Scriptures with the happiest effects; but it is not permitted to enter within the veil which the Lord of Nature has thrown over his councils. Its province, which is sufficiently extensive, is to examine the language of the prophecies, and to discover their application.

48 Character of their style symbolical.

The character of the prophetic style varies according to the genius, the education, and mode of living of the respective authors; and there are some peculiarities which run through the whole prophetic books. A plain unadorned style would not have suited those men who were to wrap the mysteries of futurity in a veil, which was not to be penetrated till the events themselves should be accomplished. For it was never the intention of prophecy to unfold futurity to our view, as many of the rash interpreters of prophecy fondly imagine; for this would be inconsistent with the free agency of man. It was therefore agreeable to the wisdom of God that prophecies should be couched in a language which would render them unintelligible till the period of their completion; yet such a language as is distinct,

distinct, regular, and would be easily explained when the events themselves should have taken place. This is precisely the character of the prophetic language. It is partly derived from the hieroglyphical symbols of Egypt, to which the Israelites during their servitude were familiarized, and partly from that analogy which subsists between natural objects and those which are moral and political.

49 Borrowed from analogy,

The prophets borrowed their imagery from the most splendid and sublime natural objects, from the host of heaven, from seas and mountains, from storms and earthquakes, and from the most striking revolutions in nature. The *celestial bodies* they used as symbols to express thrones and dignities, and those who enjoyed them. *Earth* was the symbol for men of low estate. *Hades* represents the miserable. *Ascending to heaven*, and *descending to earth*, are phrases which express rising to power, or falling from it. *Great earthquakes*, the *shaking of heaven and earth*, denote the commotions and overthrow of kingdoms. The *sun* represents the whole race of kings shining with regal power and glory. The *moon* is the symbol of the common people. The *stars* are subordinate princes and great men. *Light* denotes glory, truth, or knowledge. *Darkness* expresses obscurity of condition, error and ignorance. The *darkening of the sun*, the *turning of the moon into blood*, and the *falling of the stars*, signify the destruction or desolation of a kingdom. *New moons*, the returning of a nation from a dispersed state. *Conflagration of the earth*, is the symbol for destruction by war. The *ascent of smoke* from any thing burning for ever, denotes the continuance of a people under slavery. *Riding in the clouds*, signifies reigning over many subjects. *Tempestuous winds*, or *motion of the clouds*, denote wars. *Thunder* denotes the noise of multitudes. *Fountains of waters* express cities. *Mountains and islands*, cities with the territories belonging to them. *Houses and ships* stand for families, assemblies, and towns. A *forest* is put for a kingdom. A *wilderness* for a nation much diminished in its numbers.

50 and from hieroglyphics.

Animals, as a *lion*, *bear*, *leopard*, *goat*, are put for kingdoms or political communities corresponding to their respective characters. When a man or beast is put for a kingdom, the head represents those who govern; the *tail* those who are governed; the *horns* denote the number of military powers or states that rise from the head. *Seeing* signifies understanding; *eyes* men of understanding; the *mouth* denotes a lawgiver; the *arm of a man* is put for power, or for the people by whose strength his power is exercised; *feet* represent the lowest of the people.

Such is the precision and regularity of the prophetic language, which we learn to interpret by comparing prophecies which are accomplished with the facts to which they correspond. So far is the study of it carried already, that a dictionary has been composed to explain it; and it is probable, that in a short time it may be so fully understood, that we shall find little difficulty in explaining any prophecy. But let us not from this expect, that the prophecies will enable us to penetrate the dark clouds of futurity: No! The difficulty of applying prophecies to their corresponding events, before completion, will still remain insurmountable. Those men, therefore, however pious and well-meaning they may be, who attempt to explain and apply prophecies which are not yet accomplished, and who delude the credulous multitude by their own romantic conjectures, cannot be acquitted of rashness and presumption.

51 Is also poetical.

The predictions of the prophets, according to the opinion of Dr Lowth, are written in a poetic style. They possess indeed all the characteristics of Hebrew poetry, with the single exception, that none of them are alphabetical or acrostic, which is an artificial arrangement utterly repugnant to the nature of prophecy.

The other arguments, however, ought to be particularly adverted to on this subject: the poetic dialect, for instance, the diction so totally different from the language of common life, and other similar circumstances, which an attentive reader will easily discover, but which cannot be explained by a few examples; for circumstances which, taken separately, appear but of small account, are in a united view frequently of the greatest importance. To these we may add the artificial conformation of the sentences; which is a necessary concomitant of metrical composition, the only one indeed which is now apparent, as it has always appeared to us.

The order in which the books of the minor prophets are placed is not the same in the Septuagint as in the Hebrew. * According to the latter, they stand as in our translation; but in the Greek, the series is altered as to the first six, to the following arrangement: Hosea, Amos, Micah, Joel, Obadiah, Jonah. This change, however, is of no consequence, since neither in the original, nor in the Septuagint, are they placed with exact regard to the time in which their sacred authors respectively flourished.

* Chronology of the Prophets.

The order in which they should stand, if chronologically arranged, is by Blair and others supposed to be as follows: Jonah, Amos, Hosea, Micah, Nahum, Joel, Zephaniah, Habakkuk, Obadiah, Haggai, Zechariah, Malachi. And this order will be found to be generally consistent with the periods to which the Prophets will be respectively assigned in the following pages, except in the instance of Joel, who probably flourished rather earlier than he is placed by these chronologists. The precise period of this prophet, however, cannot be ascertained; and some disputes might be maintained concerning the priority of others also, when they were nearly contemporaries, as Amos and Hosea; and when the first prophecies of a later prophet were delivered at the same time with, or previous to, those of a prophet who was called earlier to the sacred office. The following scheme, however, in which also the greater prophets will be introduced, may enable the reader more accurately to comprehend the actual and relative periods in which they severally prophesied.

The

The PROPHETS in their supposed Order of Time, arranged according to Blair's Tables * with but little variation.

	Before Christ.	*Kings of Judah.*	*Kings of Israel.*
Jonah,	Between 856 and 784.		Jehu, and Jehoahaz, according to Lloyd; but Joash and Jeroboam the Second according to Blair.
Amos,	Between 810 and 785.	Uzziah, chap. i. 1.	Jeroboam the Second, chap. i. 1.
Hosea,	Between 810 and 725.	Uzziah, Jotham, Ahaz, the third year of Hezekiah.	Jeroboam the Second, chap. i. 1.
Isaiah,	Between 810 and 698.	Uzziah, Jotham, Ahaz, and Hezekiah, chap. i. 1. and perhaps Manasseh.	
Joel,	Between 810 and 660, or later.	Uzziah, or possibly Manasseh.	
Micah,	Between 758 and 699.	Jotham, Ahaz, and Hezekiah, chap. i. 1.	Pekah and Hosea.
Nahum,	Between 720 and 698.	Probably towards the close of Hezekiah's reign.	
Zephaniah,	Between 640 and 609.	In the reign of Josiah, chap. i. 1.	
Jeremiah,	Between 628 and 586.	In the thirteenth year of Josiah.	
Habakkuk,	Between 612 and 598.	Probably in the reign of Jehoiakim.	
Daniel,	Between 606 and 534.	During all the Captivity.	
Obadiah,	Between 588 and 583.	Between the taking of Jerusalem by Nebuchadnezzar and the destruction of the Edomites by him.	
Ezekiel,	Between 595 and 536.	During part of the Captivity.	
Haggai,	About 520 to 518.	After the return from Babylon.	
Zechariah,	From 520 to 518, or longer.		
Malachi,	Between 436 and 397.		

* *Bishop Newcome's Version of Minor Prophets*, Preface, p. 43.

52 Isaiah.

Isaiah is supposed to have entered on the prophetic office in the last year of the reign of Uzziah, about 758 years before Christ: and it is certain that he lived to the 15th or 16th years of Hezekiah. This makes the least possible term of the duration of his prophetical office about 48 years. The Jews have a tradition that Isaiah was put to death in the reign of Manasseh, being sawn asunder with a wooden saw by the command of that tyrant: but when we recollect how much the traditions of the Jews were condemned by our Saviour, we will not be disposed to give them much credit. The time of the delivery of some of his prophecies is either expressly marked, or sufficiently clear from the history to which they relate. The date of a few others may with some probability be deduced from internal marks; from expressions, descriptions, and circumstances interwoven.

53 Character of his style.

Isaiah, the first of the prophets both in order and dignity, abounds in such transcendent excellencies, that he may be properly said to afford the most perfect model of the prophetic poetry. He is at once elegant and sublime, forcible and ornamented; he unites energy with copiousness, and dignity with variety. In his sentiments there is uncommon elevation and majesty; in his imagery the utmost propriety, elegance, dignity, and diversity; in his language uncommon beauty and energy; and, notwithstanding the obscurity of his subjects, a surprising degree of clearness and simplicity. To these we may add, there is such sweetness in the poetical composition of his sentences, whether it proceed from art or genius, that if the Hebrew poetry at present is possessed of any remains of its native grace and harmony, we shall chiefly find them in the writings of Isaiah: so that the saying of Ezekiel may most justly be applied to this prophet:

Lowth's Isaiah.

> Thou art the confirmed exemplar of measures,
> Full of wisdom, and perfect in beauty. †

† Ezek. xxviii. 12.

Isaiah greatly excels too in all the graces of method, order, connexion, and arrangement: though in asserting this we must not forget the nature of the prophetic impulse, which bears away the mind with irresistible violence, and frequently in rapid transitions from near to remote objects, from human to divine; we must also be careful in remarking the limits of particular predictions, since, as they are now extant, they are often improperly connected, without any marks of discrimination; which injudicious arrangement, on some occasions, creates almost insuperable difficulties. It is, in fact, a body or collection of different prophecies, nearly allied to each other as to the subject, which, for that reason, having a sort of connexion, are not to be separated but with the utmost difficulty. The general subject is the restoration of the church. Its deliverance from captivity; the destruction of idolatry; the vindication of the divine power and truth; the consolation of the Israelites, the divine invitation which is extended to them; their incredulity, impiety, and rejection; the calling in of the Gentiles; the restoration of the chosen people; the glory and felicity of the church in its perfect state; and the ultimate destruction of the wicked—are all set forth with a sufficient respect to order and method. If we read these passages with attention, and duly regard the nature and genius of the mystical allegory, at the same time remembering that all these points have been frequently touched upon in other prophecies promulged at different times, we shall neither find any irregularity in the arrangement of the whole, nor any want of order and connexion as to matter or sentiment in the different parts. Dr Lowth esteems the whole book of Isaiah to be poetical, a few passages excepted, which, if brought together, would not at most exceed the bulk of five or six chapters.

54 Unparalleled sublimity of the 14th chapter.

The 14th chapter of Isaiah is one of the most sublime odes in the Scripture, and contains one of the noblest personifications to be found in the records of poetry.

The prophet, after predicting the liberation of the Jews from their severe captivity in Babylon, and their restoration to their own country, introduces them as reciting a kind of triumphal song upon the fall of the Babylonish monarch, replete with imagery, and with the most elegant and animated personifications. A sudden exclamation, expressive of their joy and admiration on the unexpected revolution in their affairs, and the destruction of their tyrants, forms the exordium of the poem. The earth itself triumphs with the inhabitants thereof; the fir-trees and the cedars of Lebanon (under which images the parabolic style frequently delineates the kings and princes of the Gentiles) exult with joy, and persecute with contemptuous reproaches the humbled power of a ferocious enemy.

> The whole earth is at rest, is quiet; they burst forth into a joyful shout:
> Even the fir-tres rejoice over thee, the cedars of Lebanon:
> Since thou art fallen, no feller hath come up against us.

This is followed by a bold and animated personification of Hades, or the infernal regions.

> Hades from beneath is moved because of thee, to meet thee at thy coming:
> He rouseth for thee the mighty dead, all the great chiefs of the earth;
> He maketh to rise up from their thrones all the kings of the nations.

Hades excites his inhabitants, the ghosts of princes, and the departed spirits of kings: they rise immediately from their seats, and proceed to mock the monarch of Babylon; they insult and deride him, and comfort themselves with the view of his calamity.

> Art thou, even thou too, become weak as we? art thou made like unto us?
> Is then thy pride brought down to the grave; the sound of thy sprightly instruments?
> Is the vermin become thy couch, and the earthworm thy covering?

Again, the Jewish people are the speakers, in an exclamation after the manner of a funeral lamentation, which indeed the whole form of this composition exactly imitates. The remarkable fall of this powerful monarch is thus beautifully illustrated.

> How art thou fallen from heaven, O Lucifer, son of the morning!
> Art cut down from earth, thou that didst subdue the nations!
> Yet thou didst say in thy heart, I will ascend the heavens;

Above

Above the stars of God I will exalt thy throne;
And I will sit upon the mount of the divine presence, on the sides of the north:
I will ascend above the heights of the clouds; I will be like the most High.
But thou shalt be brought down to the grave, to the sides of the pit.

He himself is at length brought upon the stage, boasting in the most pompous terms of his own power; which furnishes the poet with an excellent opportunity of displaying the unparalleled misery of his downfal. Some persons are introduced, who find the dead carcase of the king of Babylon cast out and exposed; they attentively contemplate it, and at last scarcely know it to be his.

Is this the man that made the earth to tremble, that shook the kingdoms?
That made the world like a desert, that destroyed the cities?
That never dismissed his captives to their own home?
All the kings of the nations, all of them,
Lie down in glory, each in his sepulchre:
But thou art cast out of the grave, as the tree abominated:
Clothed with the slain, with the pierced by the sword,
With them that go down to the stones of the pit; as a trodden carcase.
Thou shalt not be joined to them in burial;
Because thou hast destroyed thy country, thou hast slain thy people:
The seed of evil doers shall never be renowned.

They reproach him with being denied the common rites of sepulture, on account of the cruelty and atrocity of his conduct; they execrate his name, his offspring, and their posterity. A solemn address, as of the Deity himself, closes the scene; and he denounces against the king of Babylon, his posterity, and even against the city which was the scene of their cruelty, perpetual destruction, and confirms the immutability of his own counsels by the solemnity of an oath.

How forcible is this imagery, how diversified, how sublime! how elevated the diction, the figures, the sentiments!—The Jewish nation, the cedars of Lebanon, the ghosts of departed kings, the Babylonish monarch, the travellers who find his corpse, and last of all Jehovah himself, are the characters which support this beautiful lyric drama. One continued action is kept up, or rather a series of interesting actions are connected together in an incomparable whole. This, indeed, is the principal and distinguished excellence of the sublimer ode, and is displayed in its utmost perfection in this poem of Isaiah, which may be considered as one of the most ancient, and certainly the most finished, specimen of that species of composition which has been transmitted to us. The personifications here are frequent, yet not confused; bold, yet not improbable; a free, elevated, and truly divine spirit, pervades the whole; nor is there any thing wanting in this ode to defeat its claim to the character of perfect beauty and sublimity. "If (says Dr Lowth) I may be indulged in the free declaration of my own sentiments on this occasion, I do not know a single instance in the whole compass of Greek and Roman poetry, which, in every excellence of composition, can be said to equal, or even approach it."

SCRIPTURE *continued in next Volume.*

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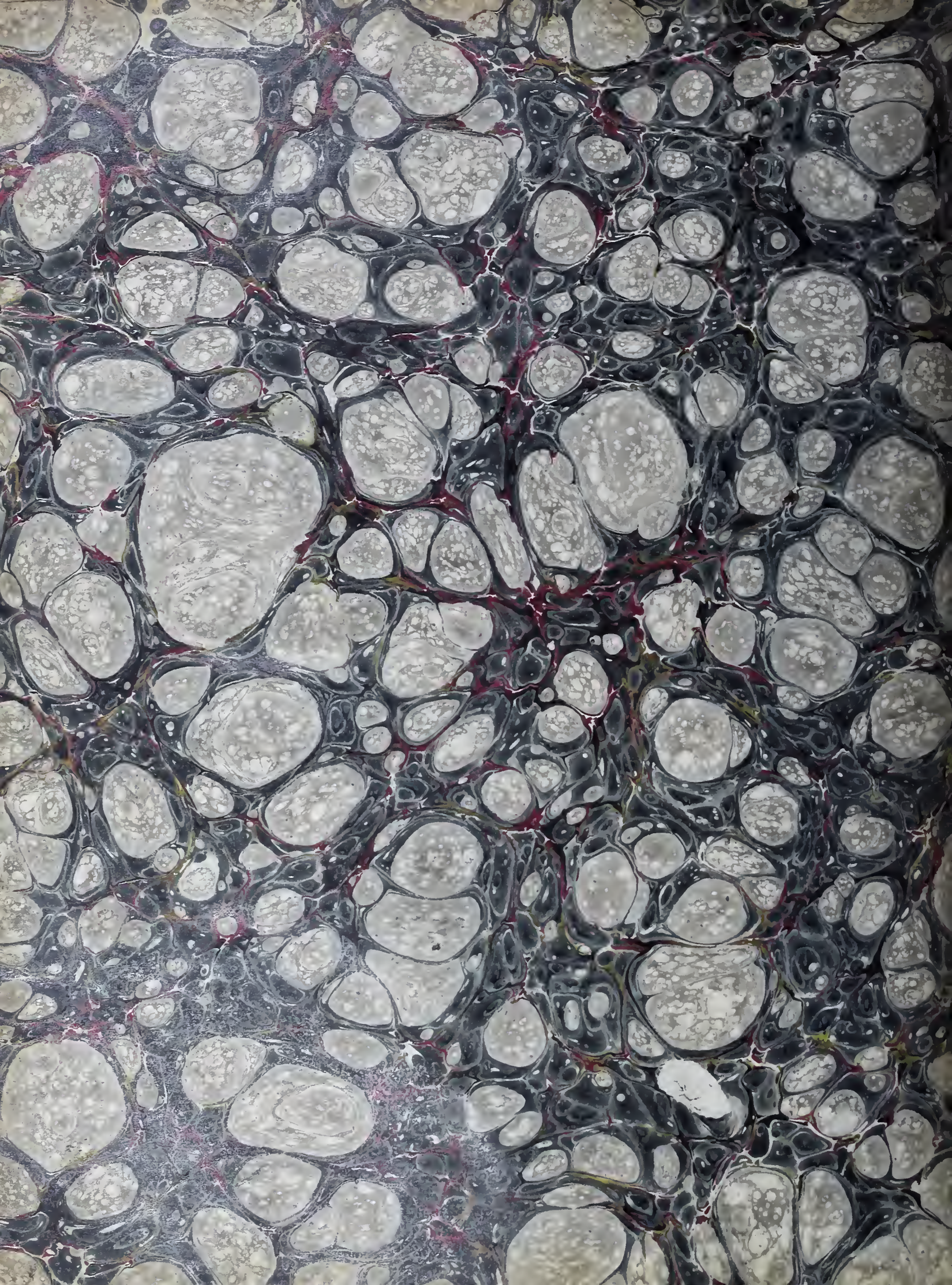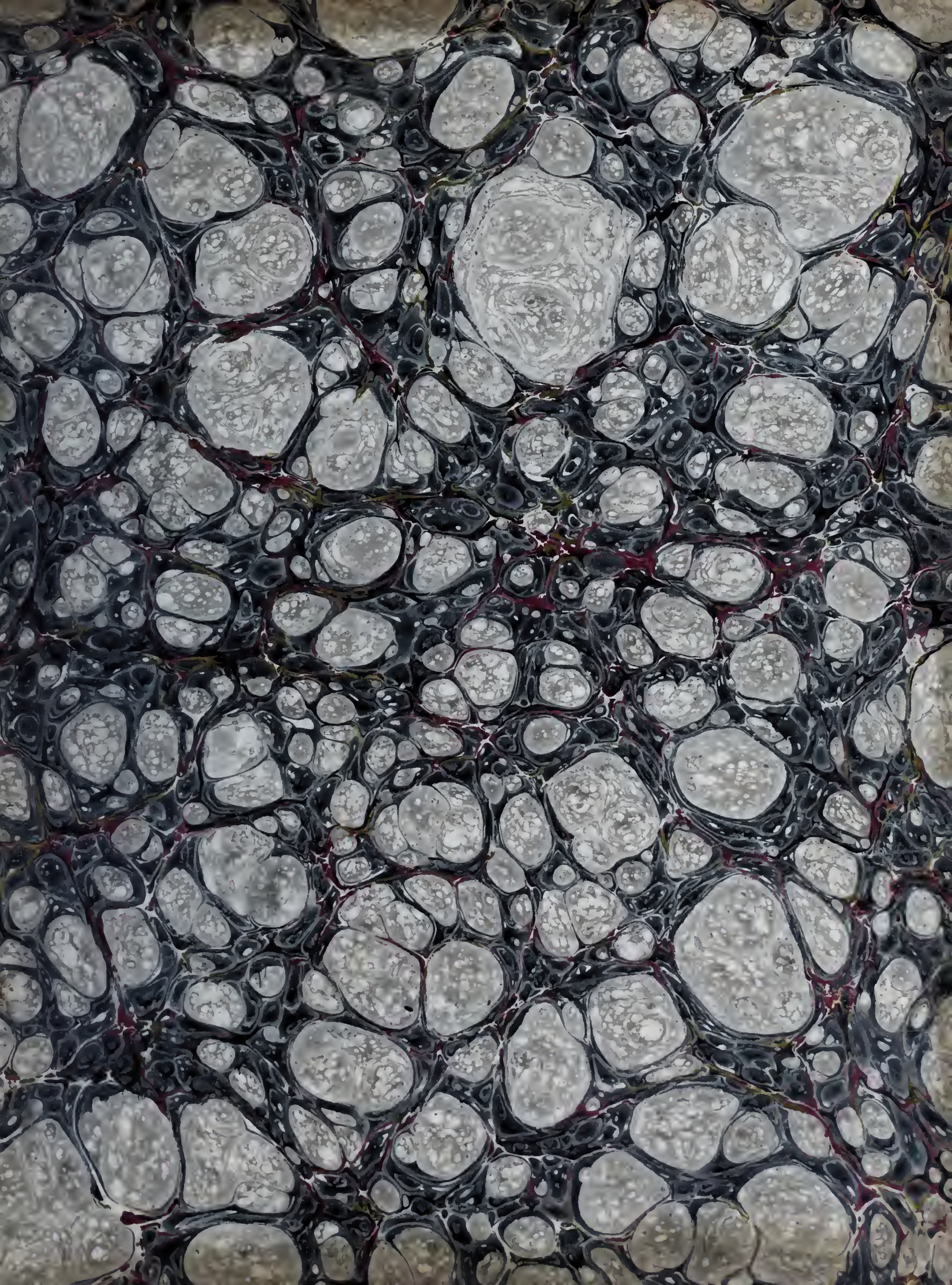
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